TEXAS STATE JOURNAL OF MEDICINE

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President's Page

STUDENT MEDICAL ASSOCIATION

In Budapest, Hungary, in the summer of 1949 there occurred a World Youth and Student Festival* held under the aegis of the World Federation of Democratic Youth and the International Union of Students, both listed by the United States Attorney General and/or the House un-American Activities Committee as communist or communist-front. At this festival there was a gala parade in which students from the United States were conspicuous. This parade ended at the festival exhibition hall, emblazoned upon the wall of which was an immense plaque bearing this motto, "Under the banner of Lenin, under the leadership of Stalin—forward to the victory of communism." The leader of the United States delegation at this festival was the vice-president for international activities of the Association of Internes and Medical Students. This organization since 1948 has been on record in favor of compulsory health insurance, and its official organ, the *Interne*, has on its scientific board several present and past leaders of the Physicians Forum, all of whom have been listed by the Attorney General and/or the House un-American Activities Committee as members of communist-front organizations.

Does this organization represent the medical students and interns of the United States? I think not. Its membership, never more than 2,000, confined chiefly to three big cities on the eastern seaboard, comprises only about 6 per cent of the more than 31,000 medical students and interns in this country. Numerically, as well as ideologically, it in no way is indicative of the thinking or desires of young physicians-to-be. It is simply an example of what a small, active, vociferous band can do and to what extremes their initiative can carry them (in the name of those who are honorable and patriotic) to accomplish subversive ends.

The machinations of this group soon came under the suspicion of members of the American Medical Association. In 1948, Dr. Burt R. Shurly of Detroit demanded in the A.M.A. convention a full-scale investigation of A.I.M.S. The Council on Medical Education and Hospitals

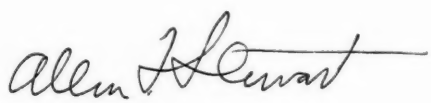
*Leftist Minority Woos Future Doctors, Medical Economics, March, 1950, p. 78; Reinemer, V.: How Our Commies Defame America Abroad, Saturday Evening Post, Feb. 11, 1950, p. 30.

was directed to look into the charges. After studying the magazine, the *Interne,* and reviewing the activities of A.I.M.S., the A.M.A. Council adopted a sensible course. It did not enter into abusive recrimination, nor did it strive to prove all the communistic affiliations of the A.I.M.S. It simply suggested, since this organization represented such a minority of medical students and interns, that the A.M.A. foster the organization of a truly representative student medical association. This was a positive stroke and took hold at once.

At the recent meeting of the A.M.A. at Atlantic City, there were introduced to the House of Delegates as guests and observers the president and vice-president of the newly created Student American Medical Association. This organization has exceeded all expectations. Medical students are perfecting their organizations in the medical schools and are forming intermediate state associations. When the local, state, and national organization is consummated, its complexion will bear little resemblance to A.I.M.S. It will be a far cry from a group that champions compulsory health insurance and sends delegates to march into a hall which displays a banner "forward to the victory of communism."

In Texas each medical school already has its student association. Each student association has an adviser from the local medical society, an appointee of the President of the Texas Medical Association. Organization of a state association will follow apace.

It is my suggestion that representatives of this State Student Association be invited to the House of Delegates of the Texas Medical Association in May, 1952. Further, I suggest consideration of amending the Constitution and By-Laws to provide for regular attendance of such students at our annual meetings. In this way the future doctors of Texas will see how our Association works, learn firsthand of its aims and purposes. They will see or hear nothing to slant them toward sympathy with anything that smacks or smells of communism.



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A.M.A. DUES QUESTION SETTLED

A resolution adopted by the Executive Council of the Texas Medical Association in session September 2 provides that all Texas physicians who were eligible for membership in the American Medical Association during 1950 but who failed to pay the $25 dues became delinquent September 1.

Physicians in other states whose dues for 1950 had not been paid were declared delinquent some months ago by the American Medical Association, but because of a resolution adopted by the House of Delegates of the Texas Medical Association last May and approved by the House of Delegates of the A.M.A. in June, Texas physicians were not so considered. It was pointed out that a misunderstanding about A.M.A. dues had worked a hardship on many Texas doctors, and the Board of Trustees of the A.M.A. was petitioned to reevaluate its position that 1950 A.M.A. dues must be paid before 1951 dues could be accepted. It was the consensus of the Executive Council that the question should be settled and that Texas should fall in line with other states in conformity with the best thinking of A.M.A. leaders.

It should be noted that as the resolution becomes effective, 4,896 members of the Texas Medical Association have paid their 1950 dues for A.M.A. membership and 725 Texas physicians eligible for A.M.A. membership for 1950 and subject to payment of the dues have not paid. Thus, 87 per cent of Texas doctors affected already have assumed their obligation to the national organization.

The ruling of the Board of Trustees of the American Medical Association is that any physician eligible for membership in the A.M.A. during 1950 must pay dues for that year before he can be accepted for membership in any subsequent year. Therefore, any of the physicians who failed to pay dues for 1950 who might wish to rejoin the A.M.A. now or in future years must pay dues first for 1950 and then for the current year.

Much has been written and said about the value of membership in the American Medical Association, and repetition of argument in that area is not necessary now. However, any mem-

ber of the Texas Medical Association who has delayed paying his 1950 A.M.A. dues in the hope that a technicality might absolve him from the necessity of such payment should realize now that the period of indecision is over. If he was eligible for membership in the A.M.A. in 1950 and has not paid his $25 annual dues for that year, he is not a member of the organization and never can be again until the 1950 dues are paid.

TRUSTEES ALERT TO MEDICINE'S NEEDS

Every efficient company or corporation has a governing body made up of wise businessmen who understand the problems and capabilities of their organization. The Texas Medical Association has such a group in its Board of Trustees.

That the Trustees must be steadfast and responsible is evident by the serious trust placed in them (Article IV, Section 1 of the Constitution):

". . . The business affairs of the Association shall be managed by a Board of Trustees, comprising five members, elected in accordance with this Constitution and By-laws. All funds of the Association shall be subject to the exclusive control of the Board of Trustees, except as otherwise provided in this Constitution and By-laws. The Board of Trustees shall decide all questions not specifically delegated to other authorities by this Constitution and By-laws. It shall in general serve as a board of directors, within the meaning of the corporate laws of the State of Texas."

As the administrative body of the Association, the Board of Trustees is charged with carrying out the policies which have been established by the House of Delegates. Guided by precedent, legislation by the House, and the wise foresight and common sense for which they were chosen, the five Trustees direct the business affairs of the Association.

Important to any corporation is the handling of its funds. Even though the Texas Medical Association is a nonprofit organization, its directors are beset with many of the same financial problems which confront a corporation designed to make a profit. Shrewd business sense is particularly essential for the Board of Trustees just now when the Association is attempting to erect a permanent, functionally effective building in the midst of rising material and labor costs. Of equal importance to the progress and welfare of the Association and also the responsibility of the Trustees are the employment of an Executive Secretary and an Editor for the JOURNAL together with general supervision of its publication, and the appointment of a Committee on Public Relations and the direction of its activities. Furthermore, the Trustees serve concurrently as the Board of Directors for the Texas Memorial Medical Library Association, which accepts and administers contributions for the development of the Library of the Texas Medical Association.

Because of the seriousness of the Trustees' duties, members of this body should treasure the confidence placed in them by others of their profession. Likewise, the Association members should respect these men who give freely of their time from their own practice to administer to the best of their ability the affairs of the Texas Medical Association. To serve as a Trustee, a physician must have knowledge of every field in which the Association and its members are interested or involved, judging wisely as to the expenditure and investment of money for the good of the Association. Furthermore, he must be alert to all factors which influence the good will and the regard which others have for the medical profession.

Many outstanding physicians have served with distinction on the Board of Trustees, devoting their best thought and energies to it. Currently the membership is comprised of Drs. Merton M. Minter, San Antonio, chairman; E. A. Rowley, Amarillo, vice-chairman; William M. Gambrell, Austin, secretary; F. J. L. Blasingame, Wharton; and G. V. Brindley, Temple. Biographical sketches and pictures of these men who, like other Trustees before them, merit

the respect of their 6,000 associates, appear in the Organization Section of this JOURNAL.

THE RED FEATHER GROWS

Community Chests, which represent more than 15,000 health, recreation, and welfare services that combine their annual appeals for funds, this year will be joined by the United Defense Fund. Thus the red feather, symbol of the more than 1,300 local Community Chests, and the contributions made in its name must grow to take care of the military and defense personnel in this country and abroad.

Included in the United Defense Fund are the United Service Organizations, American Social Hygiene Association, National Recreation Association, United Community Defense Services, and American Relief for Korea. The USO alone is operating in 115 military areas in the continental United States and overseas, helping to solve many of the problems arising from the present emergency.

Many members of the medical profession are back in uniform. Donations to local Community Chest campaigns everywhere will help make life happier and more comfortable for them and their families as well as for the thousands of other men and women serving their country at home and abroad. Furthermore, this once-a-year contribution also will help care for the health and welfare needs of the economically dependent persons who physicians believe should be the responsibility of local citizens instead of the federal government.

Generous contributions to the Community Chest drives this fall will help to strengthen and defend our democracy, for the Community Chest and the United Defense Fund represent a voluntary mobilization of funds and leadership in an effort to answer many of the major health, recreation, and welfare questions of today.

CURRENT EDITORIAL COMMENT

HOSPITAL CONSTRUCTION

The State Hospital Construction Program under the Hill-Burton Act has been in operation about four years. It should be understood that the implementation of the Hill-Burton Act is essentially a state program and while it is true that federal funds are provided for the project, the allocation of these funds to individual hospitals is a state responsibility.

Minimum standards of construction are prescribed in the federal regulations to insure sound construction and good functional arrangement of facilities, but it is the state's responsibility to see that these requirements are met. Only one inspection by technical representatives of the U. S. Public Health Service is required during the construction stage of a project. This inspection is usually made shortly before completion of the project.

Although the Federal Act required the State Enabling Act to contain a provision concerning compliance with minimum standards of operation and maintenance again, it is the state that sets and enforces these standards. The U. S. Public Health service representatives have endeavored to emphasize the state's responsibility and to avoid any action which might give the impression that the federal government intends to dictate operating policies or to interfere in any way with the conduct of these hospitals upon completion.

Recent reports from Dr. George W. Cox, State Health Officer, indicate that the State Board of Health, which is the Texas agency responsible for the program, has aided in alleviating the shortage of hospital beds, particularly

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

in rural areas. A total of 5,251 beds and four public health centers have been constructed or approved for construction. One hundred projects have been approved. Twenty-seven of these have been in counties where no hospitals previously existed; nine in counties for replacement of non-acceptable hospitals; and 25 in counties in which existing hospitals have been expanded or new additional hospitals have been constructed. In 11 regional centers, new potential teaching hospitals have been constructed or existing hospitals expanded. These projects are generally distributed throughout Texas.

Of more significance has been the contribution of this agency in stimulating through its educational campaign a manifest desire on the part of the boards of trustees and members of medical staffs of these hospitals to maintain a high standard of patient care. In many instances the adoption by hospitals of recognized basic methods of organization essential to a high standard of patient care has been brought about by the campaign of personal conferences with administrators and hospital governing bodies. Although applicants accepting grants-in-aid obligate themselves to conduct the hospital, when completed, in accordance with minimum standards of operation and maintenance established by the state agency, no attempt at compulsion has been made nor has compulsion been considered a useful approach to the problem. As a rule, hospital authorities are anxious to learn about good standards and desire to cooperate.

There is reason to believe that this program will stimulate better care of patients even in hospitals which are not included in the program. It suggests the need for Texas to join the ranks of thirty-six other states which have hospital licensure laws. The impact of the Hill-Burton program in pointing up the need for action in the licensure area is reflected in the increased activity among the states after passage of the Hospital Survey and Construction Act. Sixteen states and territories had licensure laws when the Hill-Burton program became effective in August, 1946. Nineteen states passed licensure legislation in 1947, four in 1948, one in 1949, and one territory in 1950. Furthermore, seven states acted to strengthen their licensure legislation in 1947, three in 1948, and eight in 1949.

DEAN F. WINN, M. D., Director,
Hospital Survey and Construction Division,
Texas State Department of Health,
Austin, Texas.

Gas Warfare in Civilian Defense

The possibility of nerve gas attacks from an enemy in time of war must not be overlooked, says Col. John R. Wood, U. S. Army Medical Corps, writing in the April 12 issue of *The Journal of the American Medical Association.*

Col. Wood believes nerve gases are the only chemical warfare agents adequate for attacks from long range because the gases can be dispersed by aerial bombs which, on exploding, will send up an invisible, odorless cloud of gas.

Although the exact behavior of a gas cloud is unknown, it is presumed it would drift downwind at the effective velocity of the wind at street level, grow in size, and eventually be dissipated as it mixes with uncontaminated air.

Three principles of prevention as a defense against gas are detection and recognition of gas, warning persons in the danger zone, and prompt use of individual or collective protection. Symptoms to look for to determine whether a nerve gas attack has taken place are constriction of the pupils of the victim, difficulty in breathing, blueness and vomiting (in severe casualties), and finally, unconsciousness, tremors, and convulsions, followed by cessation of breathing and generalized paralysis.

Diet Rather Than Exercise

Dieting rather than exercising is the way to lose weight, Dr. Max Millman, Springfield, Mass., says in a May issue of *Today's Health.* Dr. Millman states that dieting is much safer and easier.

"To lose a pound of body fat by dieting is simple," says Dr. Millman, but to lose the same pound by physical activity you would have to saw wood for 10½ hours, lay 14,731 bricks, do carpentry for 30 hours, shovel 114,000 pounds of sand, run 43 miles, or wrestle 5½ hours."

Dr. Millman's most serious objection to physical exercise in reducing is the harm that may result from "injudicious and indiscriminate use." He points out that this is especially true regarding fat people of middle age. Even when resting, the fat person's heart is working overtime and straining the heart with vigorous exercise could prove dangerous. The writer feels the greatest service exercise can do in obesity is to improve muscle tone and should be undertaken only after an appreciable amount of weight has been lost and the heart has been relieved of some strain. He then suggests walking, swimming, and golf as forms of mild exercise for the fat person.

ORIGINAL ARTICLES

STUDIES OF FACTORS IN CONGESTIVE HEART FAILURE DURING EFFECTIVE THERAPY

HUGH P. REVELEY, M.D.; GEORGE R. HERRMANN, M.D.; and JULIO A. ORTIZ, M.D., Galveston, Texas*

With the Technical Assistance of Alicia Y. Russell, B. A., B. S.

DISTURBANCES of the salt and water metabolism have been shown to be a major disorder in patients with myocardial insufficiency and edema.[4, 12, 15] Sodium has been demonstrated by Burch and his associates[1] to be retained to a conspicuous degree in the patient's body during the development and the worsening of the syndrome of congestive heart failure. Under such conditions the excretion of ingested sodium is more than doubly delayed. An increase of sodium intake aggravates the edematous state, whereas sharp restriction of sodium causes a gradual disappearance of edema.

Congestive heart failure may be dramatically relieved by mercurial diuretics, which have been shown to greatly augment sodium output in the urine by depressing renal tubular reabsorption of sodium and water. The fact that mercury has no pharmacologically demonstrable effect on the renal tubule was taken by some as evidence that the kidney was most important in the syndrome. The somewhat facetiously expressed view that congestive heart failure is a disease of the kidneys is only acceptable as overstatement to bring proper recognition and appreciation of the strategic role of the kidneys.

The concept of the delicate renal regulation of the fluid compartments of the body is essential to an understanding of the modern concepts of congestive heart failure. It is to be remembered that the fluid must be transported to the kidneys by the circulation, which in turn depends on myocardial integrity, and that the kidneys are sensitive to circulatory changes and to pituitary and adrenal hormones.

The classic "backward pressure" theory of the progression of congestive heart failure has been challenged as inadequate in explaining all of the associated phenomena.[19] A new concept of congestive failure which emphasizes extracardiac factors[6] has been derived. In this paper we propose to report studies of kidney function in patients with congestive heart failure under the influence of active drugs. We hope to throw light on the mechanisms at play during the alleviation of edema.

A review of the modern concepts of renal physiology must be clearly in mind. Gamble[5] has graphically portrayed the chemical anatomy, physiology, and pathology of the extracellular fluid. He described extracellular fluid as composed of blood plasma and interstitial fluid. It constitutes the immediate environment of the organism, replacing the external environment of the early forms of life. Incoming substances enter the plasma, which is directly affected by the mechanisms of regulation. On the arterial side of the capillary bed, fluid moves into the interstitial space under hydrostatic pressure produced by work of the heart. On the venous side the osmotic differential produced by the plasma proteins is unopposed and sustains a return flow into the vascular compartment.

MECHANISM OF RENAL FUNCTION

The main organ of regulation of extracellular fluid is the kidney. Renal regulation consists essentially in selective reabsorption of water and substances from the glomerular filtrate by tubular epithelial cells. Glomerular urine is formed by filtration alone, as shown by Richards and his associates.[14] Formation of glomerular urine is dependent upon the circulatory conditions in the glomerular capillaries. The effective filtration pressure is the resultant of the blood pressure in the glomerular capillaries and the opposing forces of the colloid osmotic pressure of the blood plasma and the hydrostatic pressure within Bowman's capsule. The mean intraglomerular pressure is subject to regulation by variation in the relative degree of constriction of the afferent and efferent arterioles of the glomerulus.

In the performance of its excretory functions the kidney may be said to "clear" the blood of certain waste and foreign products. The "clearance" of a substance is the number of cubic centimeters of blood which contain the amount of the substance removed per minute by renal excretion.[11] Smith[17] has pointed

Read before the Section on Internal Medicine, Texas Medical Association, Annual Session, Galveston, May 2, 1951.

From the Cardiovascular Service and Research Laboratory, University of Texas Hospitals.

**National Heart Institute Trainee.*

out that the clearance also represents the minimum volume of blood required to furnish the amount of substance excreted in the urine in one minute. If U indicates the concentration of urine in a substance, and V the volume of urine formed per minute, U times V equals the quantity of substance excreted per minute. If P indicates the concentration of substance in the plasma, UV divided by P indicates the virtual volume of plasma "cleared" of the substance per minute, that is, the "clearance."

Theoretically, a substance may be excreted by glomerular filtration alone, filtration plus tubular excretion, or filtration plus tubular reabsorption. Glucose is completely reabsorbed by the tubules after it is completely filtered by the glomerulus; hence, its normal clearance is zero. The polysaccharide inulin, which is not metabolized by the body, is completely filtered at the glomerulus and none of it is reabsorbed; hence its clearance is 100 per cent, and is synonymous with the glomerular filtration rate. An average of 125 cc. of blood are cleared of inulin per minute by normal kidneys.

Para-aminohippurate (P.A.H.) is filtered at the glomerulus and also is excreted by the tubules, for its clearance of 740 cc. of blood exceeds the rate of glomerular filtration. Inasmuch as the kidneys cannot excrete more of a substance per unit of time than is brought to them in the plasma, the upper limit of renal clearance is determined by the renal blood flow. It is to be remembered that P.A.H. is cleared both by glomerular filtration and by tubular excretion. If all of the P.A.H. contained in the plasma passing through the kidneys is removed and is concurrently transferred to the urine, its clearance will be complete and will be equivalent to the volume of plasma flowing through the kidneys per minute, the so-called effective renal plasma flow.

The filtration fraction, or apparent fraction of the plasma cleared through the glomeruli, is derived by dividing the glomerular filtration rate by the effective renal plasma flow. Normally its value is 20 per cent. The renal blood flow appears to be controlled predominantly by the efferent glomerular arterioles, these arterioles being normally constricted. Since, with such efferent control, an increase or decrease in renal blood flow is accompanied by an inverse change in filtration pressure, the filtration fraction varies inversely to the renal blood flow.[2] The filtration fraction is an index of the degree of vasoconstriction of the efferent arteriole of the glomerulus.

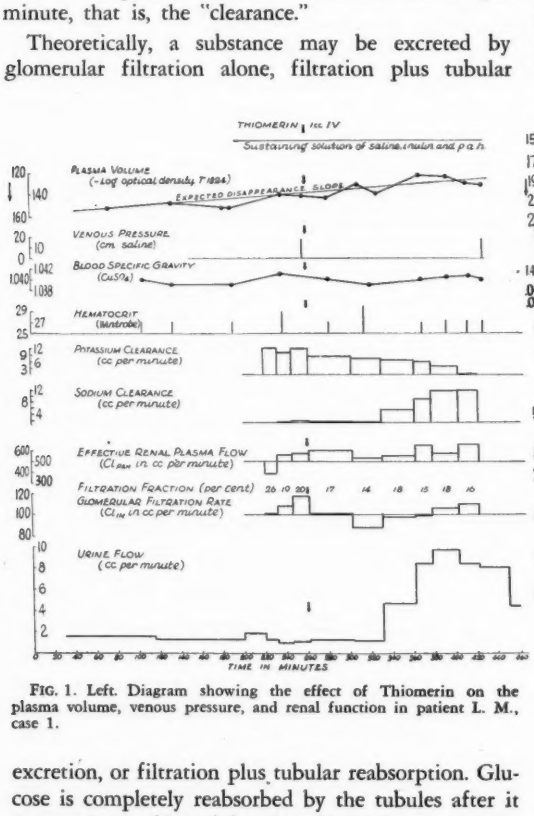
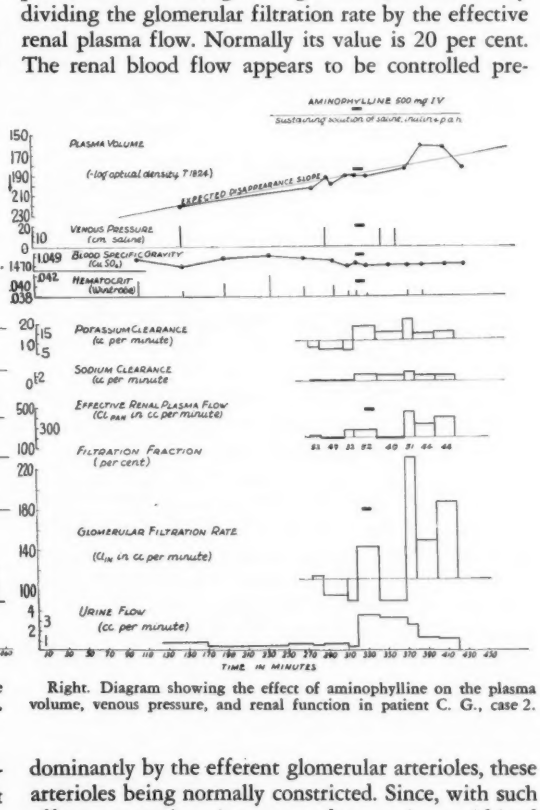


FIG. 1. Left. Diagram showing the effect of Thiomerin on the plasma volume, venous pressure, and renal function in patient L. M., case 1.



Right. Diagram showing the effect of aminophylline on the plasma volume, venous pressure, and renal function in patient C. G., case 2.

EXPERIMENTAL STUDIES

Recently we have used these newer methods of studying renal function with inulin and P.A.H. clearances in preliminary observations on the effect of aminophylline, a xanthine diuretic, and Thiomerin, a mercurial diuretic, on renal function and circulatory dynamics. Simultaneous determinations of plasma volume (in terms of concentration of T 1824) venous

pressure; specific gravity of the blood; hematocrits; renal clearance of sodium, potassium, and chloride ions; and clearances of inulin and P.A.H. were made.

Thiomerin

In figure 1 are charted the characteristic changes occurring in patient L. M. with Thiomerin therapy. The patient was a Negro woman of 23 years who had thyrotoxic heart disease with hypertension and severe secondary anemia. The blood pressure was 170/70. Clinically, this patient's condition exemplified high output cardiac failure, although the cardiac output was not determined. Prior to our studies it had been necessary to administer 500 cc. of whole blood and to begin oral digitalization; 250 mg. of aminophylline was given intravenously fourteen and twelve hours before our studies began.

Control observations for 220 minutes established the disappearance slope of the T1824 (which is arbitrarily represented as sloping upward to represent increases in plasma volume as an upward shift) and the rate of the flow of urine. Three continuous clearance periods were observed during a total of 42 minutes before administration of 1 cc. of Thiomerin intravenously. Six periods during a total of 160 minutes were observed after injection of the mercurial diuretic.

Diuresis did not ensue until 70 minutes after giving Thiomerin. The glomerular filtration rate did not change significantly; there was slight increase in effective renal plasma flow; the filtration fraction was not altered significantly. A prompt, conspicuous increase in sodium clearance paralleled the rate of urine flow. Subsequent determinations of the urinary sodium after completion of the clearance studies revealed that the concentration of sodium fell in proportion to the decrease in urinary excretion. Potassium clearance fell gradually as sodium clearance rose; in the last period of 19 minutes potassium was almost completely reabsorbed as increased sodium excretion continued unabated.

The venous pressure did not change during this short period of observation. The blood volume showed no significant alteration. Hematocrit readings and determinations of the specific gravity of the blood did not reflect any significant consistent changes.

Aminophylline

The characteristic effects of aminophylline in patient C. G. are shown in figure 2. The patient was a 50 year old white man with rheumatic heart disease who had been taking digitalis for ten weeks when our studies were made. He had mild congestive failure. After the disappearance slope of the T1824 was established, control observations of the renal clearance of inulin, P.A.H., and the electrolytes were conducted. The glomerular filtration rate was below normal levels and the effective renal plasma flow well below average; the filtration fraction was high.

After the administration of 500 mg. of aminophylline intravenously, there was a prompt increase in the flow of urine and a moderate increase in the filtration rate and renal plasma flow. No immediate rise in plasma volume was noted at this time but venous pressure fell slightly, from 19 to 17 cm. of saline. During the next 28 minutes the filtration rate, flow of plasma, and filtration fraction all fell. Then for ten minutes there was a second marked rise in the filtration rate and a moderate increase in the flow of plasma; the filtration fraction rose but did not exceed the control levels. Coincidental with the conspicuous rise in the filtration rate was a definite rise in the volume of plasma. The increase in filtration rate persisted although the rate of urinary flow was declining. The effective renal plasma flow remained high and the filtration fraction fell moderately.

The sodium clearance increased promptly with diuresis but was significantly lower than that attained with mercurial therapy. However, it persisted after the peak of diuresis. It did not vary as much as the glomerular filtration rate or effective renal plasma flow, but in general the increased sodium clearance paralleled the increased filtration rate and effective renal plasma flow. Sodium clearance remained at a high level although the filtration fraction fell to a lower level in the last two periods of 21 and 20 minutes.

Potassium clearance paralleled sodium clearance. The specific gravity of the blood and hematocrit readings were not directly correlated with changes in plasma volume, although in general they were compatible with these changes.

DISCUSSION

Mercurial diuresis is generally believed to be effected by the decreased reabsorption of sodium and water by the tubular epithelium. Secondary to the loss of sodium and water there results a fall in venous pressure and blood volume,[6] as was also shown by Pugh and Wyndham.[13]

The mechanism of diuresis with aminophylline remains controversial. We have believed that aminophylline increased glomerular filtration by augmenting glomerular circulation. Any defect in tubular reabsorption was thought due to a secondary circulatory effect incident to the increased rate of passage of glomerular filtrate through the tubules, interfering with reabsorption as the filtrate rapidly passed the epithelial cells, and to increased blood flow through the tubular plexuses.

Chasis and his colleagues[2] observed that theophylline produced an increase in inulin clearance, a fall

in Diodrast clearance, and a rise in the filtration fraction. They were of the opinion that theophylline might dilatate the afferent arteriole in the face of a persistently constricted efferent vessel. They studied normal persons in whom the effect of theophylline in increasing filtration rates greatly overshadowed its effect on the flow of plasma to the tubules and in whom the filtration fraction was greatly increased. Chasis and his associates cited Hoen and Neuthard,[7] who demonstrated that theophylline increased cardiac output and decreased the peripheral resistance. More recently Howorth and his co-workers[8] have demonstrated the marked rise in cardiac output associated with a prompt fall in right atrial pressure after intravenous administration of theophylline.

Turner, James, and Merrill[18] observed that intravenous aminophylline in cardiac patients with cardiac disease increased the renal blood flow and filtration rate and caused an increased rejection of sodium by the tubules. These renal changes were minor in degree and not of an order comparable to the increased cardiac output. The authors noted a decrease in peripheral resistance which was more conspicuous in the pulmonary circulation. They believed that the reduced filtration rate, reduced flow of plasma, and elevated filtration fraction seen in congestive failure are due to constriction of the efferent arteriole, probably as a result of hormonal stimulation since spinal anesthesia does not increase the renal blood flow.

Davis and Shock[3] observed that although aminophylline consistently produced a sustained increase in the glomerular filtration rate in control subjects, in patients with cardiac disease the drug increased glomerular filtration rate only at the onset of its effect. The continued effect of the drug in the excretion of sodium and water persisted despite diminished glomerular filtration. They believed that a decrease in tubular reabsorption contributed more to the sustained diuresis than the augmented filtration rate.

Sinclair-Smith and his associates[16] believed that aminophylline has a twofold effect as a diuretic and that its action is modified by the degree of decompensation. They cited a direct effect on the circulation which causes augmented filtration rate and renal plasma flow, presumably due to an increased cardiac output. A second effect on the renal tubules diminishes reabsorption of filtered sodium.

Aminophylline restores circulatory balance promptly, albeit temporarily, by actions which are localized principally to the blood vessels and the heart. Marked alterations in the volume of blood occur during the onset of diuresis which may reflect changes in circulatory dynamics as yet poorly defined. We are of the opinion that the drug acts primarily on the renal circulatory apparatus but also on the circulation as a whole. Any effects on tubular function are secondary to the circulatory effects.

On the other hand, mercury has a primary effect on renal tubular reabsorption which produces an outpouring of sodium and water. As fluid is mobilized and excreted, the circulating volume of blood diminishes, followed by lowering of the venous-filling pressure of the heart and reestablishment of circulatory equilibrium.

SUMMARY

1. The role of the kidneys in the maintenance of fluid balance is briefly described and the use of renal clearance studies discussed.

2. The depressing effect of mercurial diuretics on tubular reabsorption of sodium has been confirmed by studies with inulin and para-aminohippurate. The circulatory effects of mercurial diuretics apparently are secondary to the excretion of edema fluid.

3. Clearance studies seem to indicate that aminophylline exerts its effect on the renal circulation. It augments sodium and water excretion by increasing the glomerular filtration rate. Changes in tubular function after the administration of aminophylline are thought to be secondary to circulatory effects.

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Capt. Hugh Reveley (M. C.), William Beaumont Army Hospital, El Paso.

ABSTRACT OF DISCUSSION

DR. CARL F. SHAFFER, Houston: Dr. Herrmann and his associates have reviewed the prevailing medical concepts of the mechanism of cardiac decompensation in this and several other papers. There remains to be found a single valid concept to explain the mechanism. I have reviewed this subject to present it to students in medical college in its most simplified form; there is no alternative, I believe, except to describe the individual concepts of forward and backward failure and to let the student formulate his own opinion as he becomes more familiar with cardiac decompensation.

I wish to discuss briefly three points in regard to therapy: (1) salt restriction as related to diet and liquids, (2) mercurial diuretics used as an adjunct in a de-salting regime, and (3) cation exchange resins.

The first point is that several types of restricted sodium diets are available. My choice is the regular 200 mg. sodium diet. Investigation has indicated that in the Gulf Coast area distilled or mineral water is preferable to tap water because of the high sodium content of the latter. Also, distilled or mineral water permits a greater variety of solids in the restricted sodium diet.

Second, mercurial diuretics in the de-salting regime is also interesting and the value of these drugs should be appreciated. I have used Mercuhydrin in doses of 2 cc., intramuscularly, daily in conjunction with a restricted sodium diet, and as much as 75 pounds of fluid has been eliminated from an edematous patient within a three week period without disturbing the electrolyte balance or producing evidence of renal insufficiency.

Finally, the cation exchange resins have not yet come into general use. The principle by which they operate is to increase the absorption of sodium from the body. It is necessary to observe the effects of exchange resins by frequent determination of serum sodium and potassium and carbon dioxide combining power. The usual dose is 50 to 100 Gm. daily. The resins are also valuable in potentiating mercurial diuretics and in patients sensitive or resistant to these diuretics. Further improvement and more extensive study of the resins is expected. There is no reason to believe that resins will replace those diuretics which, acting on the distal part of the renal nephron, cause loss of both anionic and cationic electrolytes in the urine.

THE SIGNIFICANCE OF BUNDLE-BRANCH BLOCK

RICHARD P. JOHNSON, Col., M.C., U.S.A., Fort Sam Houston, Texas;*
ADDISON LEE MESSER,† M.D., Birmingham, Alabama;
and SHREENIVAS,‡ M.D., India

THE error of basing the prognosis of a patient on a single laboratory finding cannot be too strongly emphasized, and the electrocardiogram is no exception. The often quoted statement that patients with bundle-branch block seldom live longer than two years is erroneous and may lead to serious mistakes in clinical judgment, particularly when a patient is disqualified for indicated surgery on this incorrect basis. A patient with serious heart disease may show evidence of bundle-branch block, but it does not follow that all patients with bundle-branch block have serious heart disease.

The generally poor outlook accorded this lesion in the earlier studies of survival time was due in part to the fact that electrocardiograms were recorded on patients with signs or symptoms of heart disease or who were strongly suspected of having heart disease. That bundle-branch block may occur without any other demonstrable evidence of heart disease is now generally accepted. There is still insufficient data to evaluate the effect of this lesion on the asymptomatic group of patients. However, more patients in this group will be seen with the increasingly routine use of the electrocardiogram as a part of the diagnostic or preoperative survey. The presence or absence of a significant number of patients with asymptomatic bundle-branch block in any study of this lesion undoubtedly will affect the average survival time, particularly if the group of patients analyzed is small.

The pioneer work of Lewis[8] and others showed clearly that the QRS complex of the electrocardiogram is determined by the passage of the wave of excitation through the musculature of the two ventricles and that the duration and configuration of the complex is determined by the time taken and the pathway followed by this wave of excitation. It was reasoned that in bundle-branch block the ventricular muscle on the involved side received the wave of excitation by a delayed or abnormal pathway; therefore, the QRS complex of the electrocardiogram naturally would be of longer duration and abnormal

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**Brooke General Hospital.*
†Instructor in Medicine, Medical College of Alabama, and Cardiologist, Seale Harris Clinic, Birmingham.
‡Ella Lyman Cabot Fellow.

configuration. This concept was clearly confirmed by Wilson and Herrmann,[15] who cut the right bundle branch in dogs and obtained electrocardiographic tracings showing the QRS complexes of right bundle-branch block. They showed that stimulation of the right ventricle to produce a contraction coincident with the sinus beat transmitted through the intact left bundle branch to the left ventricle resulted in a normal QRS, similar to that obtained in the intact animal. When the right ventricle was stimulated during its refractory period, the QRS complex was of the right bundle-branch block form. These experiments showed that the QRS complex is the resultant of the action of the two ventricles and that in right bundle-branch block, the left ventricle contracts before the right ventricle.

In the electrocardiographic diagnosis of bundle-branch block, the duration of the QRS conduction time is of great importance. In the standard limb leads, the normal QRS complex seldom exceeds 0.10 second. However, intraventricular block can occur when the QRS is of normal duration. This block is diagnosed by a delay in activation of the free wall of the ventricle on the involved side shown in the precordial leads by a delay in the intrinsicoid deflection. Complete bundle-branch block is diagnosed when the QRS complex is 0.12 second or longer.[3]

QRS complexes of 0.12 second may occur in the absence of bundle-branch block, particularly when ventricular hypertrophy is present.[16] In these instances, it takes longer for the wave of activation to spread throughout the increased muscular mass. The diagnosis of bundle-branch block and the differentiation between the right and left branch types can be made in the majority of instances from standard limb lead 1. Multiple precordial leads, however, will increase the accuracy of localizing the lesion to one or the other ventricle and should always be taken. The error in classifying right and left bundle-branch block from the standard limb leads is small, less than 1.5 per cent, in our experience.[10]

There is general agreement now that the V leads are superior to CF, CR, or CL leads and that a single chest lead is of limited value in general and of no value in localizing the lesion of bundle-branch block. Precordial leads V_1 to V_6 are desirable as a routine, and lead V_4R should be taken if a right ventricular complex is not shown in these leads. Occasionally it is necessary to take additional leads further to the right or left or an interspace higher or lower. The routine at Brooke General Hospital includes seven precordial leads: V_4R and V_1 to V_6; occasionally it is necessary to take additional leads for a satisfactory diagnosis.

In the presence of right bundle-branch block, precordial leads taken from the right side of the precordium show an M-shaped complex with R and R′ waves. The second R or R′ wave is due to the delay in activation of the free wall of the right ventricle. In left bundle-branch block, precordial leads obtained from the left side of the precordium show a slurred, broad, bifid or notched R wave with a delay in the intrinsicoid deflection, indicating a delay in activation of the lateral wall of the left ventricle. In both instances leads taken from the opposite side of the precordium will show broad, slurred, negative deflections or S waves due to the late activation of the involved ventricle. This finding, of course, is due to the position of the electrode in relation to the mean direction of the QRS vector.

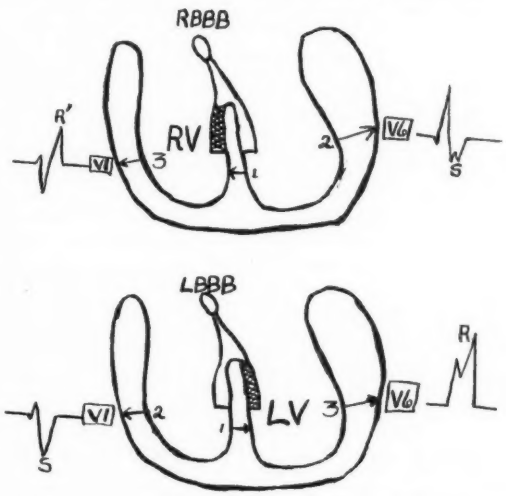

FIG. 1. Diagrammatic representation of QRS complex to be found on the right (V_1) and on the left (V_6) sides of the precordium in right bundle-branch block (RBBB) and in left bundle-branch block (LBBB). The crosshatching of one arm of the auriculoventricular bundle represents the theoretic area of the block. RV = right ventricle. LV = left ventricle. The figures 1, 2, and 3 accompanying the arrows refer to the sequence of activation of the septum and of the right and left ventricular walls.

In incomplete bundle-branch block the QRS complexes may be only slightly prolonged or the total duration may be within the upper limits of normal; the delay in the intrinsicoid deflection with slurring of the first part of the R wave is the diagnostic feature. This delay with shurring is of importance in differentiating between incomplete and complete left bundle-branch block and between bundle-branch block and delay of intraventricular conduction due to ventricular hypertrophy. If the abnormality is intermittent with occasional normal QRS complexes, ventricular hypertrophy as a cause of the abnormal QRS complexes of course is excluded. Theoretically, a Q wave in leads showing the left ventricular complex excludes the diagnosis of bundle-branch block except in the presence of septal infarction. Exceptions to this may

be seen at times, possibly due to a more peripheral involvement of the left bundle-branch conducting system so that the septum is activated normally.

Right bundle-branch block may occur with a QRS duration of 0.08 second in the standard limb leads if the block is incomplete. There may or may not be a broad S wave in lead 1. The presence of an early R deflection and a late R′ deflection from the right side of the precordium, especially if these deflections are present in both lead V_1 and V_E, is considered diagnostic.[2] If the changes in V_1 or V_2 are suggestive, it is advisable to take additional leads to the right of these positions in the V_3R or V_4R position, or even to explore the right precordium with leads an interspace higher or lower to confirm the diagnosis.

POSSIBLE ANATOMIC LESIONS

After the experimental production of bundle-branch block, a careful search was made at necropsy in human beings for a lesion in the area of the bundle branch thought to be involved, and many were satisfied that they had observed this lesion.[5] Other authorities, however, described instances in which either careful histologic study failed to demonstrate a lesion[4] or lesions were found in the area of both bundle branches.[9]

Robinson[13] stressed the concept of "function fatigue" to explain the electrocardiographic pattern of bundle-branch block in the absence of an anatomic lesion. A simple example of this concept is the aberration of the QRS complex that may follow a premature auricular beat. This aberration may be noted in successive beats in certain auricular tachycardias; for this reason the diagnosis of bundle-branch block in the presence of tachycardia should be confirmed only after the tachycardia has subsided.

Lepeschkin and Pezzi[1] used an analogy for the Wolff-Parkinson-White syndrome which may apply here. The excitation impulse is visualized as a train which arriving at the auriculoventricular node stops; there the impulse is loaded onto two trains—one for each of the two main branches. It is conceivable that one train might start earlier or run faster than the other.

Wilson and Herrmann[16] demonstrated that hypertrophy of a ventricle widens the QRS complex. Since it is known that the QRS in the normal mammal varies in fairly strict accordance with the heart size from the mouse to the elephant (about 0.01 second for the mouse, 0.05 for the human infant, 0.10 second for the human adult, and 0.18 second for the elephant), it is probable that marked enlargement of the heart itself, with little or no myocardial disease, can account for some of the increased duration of the QRS complex to 0.12 second or longer. However, it is not likely that prolongation of the QRS complex to 0.15 second or beyond can be accounted for in this manner, Rasmussen and Moe,[11] as the result of clinical, radiologic, and necropsy examination of 100 patients with left bundle-branch block, came to the conclusion that the block pattern is five times more often due to enlargement of the left side of the heart than to a localized lesion of the left branch of the bundle. They considered dilatation of the left ventricle more important than hypertrophy in this regard.

The electrocardiographic pattern of bundle-branch block therefore may be the result of one of two principal mechanisms. The first, the septal or central type, occurs when there is a lesion, either physiologic or anatomic, of a bundle branch. The second is the so-called peripheral mechanism, in which the delayed conduction is in the free lateral wall of the ventricle on the involved side. Actually, this latter type was originally conceived of as "arborization block."

Finally, reference must be made to the work of the Glomsets,[6] who denied the existence in man of the bundle branches as well as other elements of the special conduction system, and to the work of the Robbs,[12] who stated that the "free" (nonseptal) walls of either or both the right and left ventricles is unnecessary in order to record the QRS-T complex on the electrocardiogram.

Ideas in the field of electrocardiography have never been static, and today concepts in the specialty are still developing and expanding. Reference to bundle-branch block includes many different types of disease, probably of greatly varying significance with regard to mechanism and prognosis.

PRESENT STUDIES

Recently we undertook with White[7, 10, 14] a study of a consecutive group of patients with bundle-branch block at Massachusetts General Hospital*. Between 1937 and 1948, 836 patients were observed to have complete bundle-branch block, either right or left. In 1948 and 1949 follow-up letters were written to determine the clinical status of these patients. Fifteen per cent of the group had been lost after varying periods of observation, and were considered as dead in our calculations. Our purpose was to determine

TABLE 1.—*Average Survival Periods of Patients with Bundle-Branch Block.*

Side of Block	Total Patients — No.	Total Patients — Survival Time (yr.)	Surviving One Year — No.	Surviving One Year — Survival Time (yr.)	Still Alive No.
Right	281	3.9	166	5.7	81
Left	555	3.3	356	4.9	151
Total	836	3.4	522	5.1	232

**The QRS duration was 0.12 second or greater in at least one standard limb lead. The following types of electrocardiograms were excluded: complete atrioventricular block; Wolff-Parkinson-White mechanism; tachycardia with a pulse rate of more than 100 per minute; transient, paroxysmal and intermittent bundle-branch block; partial bundle-branch block; and incomplete or indeterminate types of bundle-branch block.*

which of various factors might affect the survival time of these patients.

Of 281 patients with right bundle-branch block, the average duration of life after the electrocardiographic diagnosis was 3.9 years (table 1), but the 166 patients who survived the first year after the diagnosis had an average survival time of 5.7 years. Of this latter group, 81 patients are still alive; therefore, the figure 5.7 years is a minimal average survival time. There were 555 patients with left bundle-branch block and their average survival time was 3.3 years. Of the 356 patients who survived the first year after the diagnosis of left bundle-branch block, the survival time was 4.9 years, with 151 patients still alive. The entire series contained 64 per cent male and 36 per cent female patients (table 2), and the vast majority were from 50 to 80 years of age.

TABLE 2.—*Age and Sex Distribution of Patients with Bundle-Branch Block.*

Age (yr.)	Side of Block		Total
	Right	Left	
< 20	1	2	3
20-39	13	18	31
40-49	36	46	82
50-59	76	132	208
60-69	81	196	277
70-79	62	128	190
>80	12	33	45
Total	281	555	836
Male	203	335	538
Female	78	220	298

TABLE 3.—*Etiologic Classification of 836 Patients with Bundle-Branch Block.*

Type of Heart Disease	Side of Block		Total
	Right	Left	
Coronary artery*	95	209	304
Hypertensive	56	220	276
Rheumatic	23	21	44
Congenital	6	2	8
Syphilitic	2	10	12
Miscellaneous	0	14	14
Undetermined	99	79	178
Total	281	555	836

*Coronary artery disease includes only those patients with either angina pectoris with effort or myocardial infarction or a reliable history of either.

Until there are more absolute criteria for the diagnosis of both right and left bundle-branch block of the incomplete types, it cannot be certain that one condition has a better prognosis than the other. In complete bundle-branch block, however, our series, as well most others reported previously, shows that a better prognosis exists for right bundle-branch block.

A comparison of etiologic factors affecting the patients with right and left bundle-branch block is shown in table 3. Both varieties of block occur with great frequency in hypertension and disease of the coronary arteries, the two types of heart disease most likely to be observed in bundle-branch block; however, some important differences may be noted.

In our series 77 per cent of the patients with left bundle-branch block had either hypertension or coronary artery disease as the probable cause, whereas only 54 per cent of the patients with right bundle-branch block had either or both of these diseases. Although right bundle-branch block occurred in only 34 per cent of this series, more than one-half of the patients with rheumatic heart disease and bundle-branch block had the right branch type of block. Similarly, of the 8 patients in this series who had congenital heart disease 6 had right bundle-branch block. In the right bundle-branch block group 35 per cent had disease of an undetermined etiology, compared with only 14 per cent in the left bundle-branch block group. Therefore, in general, complete left bundle-branch block was almost always observed in a patient with either hypertension or coronary artery disease. In right bundle-branch block, although these two etiologic factors were common, many other patients with rheumatic heart disease, with congenital heart disease, or especially with a disease of undetermined etiology were seen. In acute pulmonary embolism transient right bundle-branch block may be noted, but seldom a left block unless it was present before the pulmonary embolism. In atrial septal defect right bundle-branch block is extremely frequent; one author observed an incidence of 95 per cent.[17] In mitral valve disease, right bundle-branch block is more frequent than left.

TABLE 4.—*Average Survival Periods in Relation to the Sex and Age of the Patients When Bundle-Branch Block Was Diagnosed.*

Age (yr.)	Total Patients	Surviving One Year	Average Survival Period (yr.)	
			Total in Series	Surviving One Year
0-29	11	8	6.7	8.0
30-39	23	13	4.4	7.0
40-49	82	61	4.7	6.0
50-59	208	119	3.8	5.9
60-69	277	187	3.6	4.8
70-79	190	104	2.8	4.4
>80	45	30	2.6	3.5
Total	836	522	3.4	5.1
Male	538	317	3.1	4.9
Female	298	205	3.9	5.4

TABLE 5.—*Average Survival Periods of 836 Patients with Bundle-Branch Block in Relation to the Etiology of Their Heart Disease.*

Type of Heart Disease	Total Patients	Surviving One Year	Average Survival Period (yr.)	
			Total in Series	Surviving One Year
Coronary artery	304	184	3.0	4.6
Hypertensive	276	178	3.4	5.0
Miscellaneous	78	41	3.2	5.6
Undetermined	178	119	4.0	5.6
Total	836	522	3.4	5.1

The survival times of different age groups with bundle-branch block are shown in table 4. Survival times were longer for the younger patients and also for the female patients. It should be pointed out that

the majority of the patients in this series had organic heart disease with significant symptoms. They do not represent patients with simply bundle-branch block.

In table 5 are shown the survival rates for the various etiologic factors associated with the bundle-branch block. It should be noted that only one etiologic group improved on the overall survival of 3.4 years and that was the group of undetermined etiology. This group, which constituted 21 per cent of the series, included those patients without an obvious or well-recognized cause for heart disease or with no evidence of heart disease other than the bundle-branch block. The survival rate of only 4 years was probably the result of undetected and asymptomatic coronary artery disease. Patients were not placed in the coronary artery disease group unless they had a history of myocardial infarction or of angina pectoris with effort.

TABLE 6.—*The Relationship to Survival Time of Heart Size at the Time of the Diagnosis of Bundle-Branch Block.*

Enlargement of Heart	Total Patients	Surviving One Year	Average Survival Period (yr.) Total in Series	Surviving One Year
None	240	160	4.2	6.0
Slight	233	148	3.5	5.2
Moderate	214	133	3.0	4.5
Marked	149	81	2.5	4.1
Total	836	522	3.4	5.1

Table 6 shows the relationship between the survival time and the size of the heart as determined clinically or by roentgenography at the time bundle-branch block was diagnosed. The patients with the largest hearts, as might be expected, showed the shorter survival times, varying from 4.2 years for those without cardiac enlargement (67 per cent of these patients survived the first year after the diagnosis of bundle-branch block) to 2.5 years for those with marked enlargement (only 54 per cent of this group survived the first year).

TABLE 7.—*Average Survival Periods of Patients with Bundle-Branch Block Arranged According to the Duration of the QRS Complex.*

QRS Duration (Sec.)	Total Patients	Surviving One Year	Survival Period (yr.) Total in Series	Surviving One Year
0.12	257	152	3.2	4.8
0.13-0.14	335	215	3.7	5.5
0.15-0.16	188	123	3.2	4.8
0.17-0.18	43	26	2.8	4.3
0.19-0.20	13	6	2.6	4.2
Total	836	522	3.4	5.1

The relationship between survival time and the duration of the QRS complex is shown in table 7. It will be noted that with one exception the survival time decreased as the QRS complex became wider. Those with a QRS duration of 0.13 and 0.14 second had a survival time of 3.7 years for the entire group and 5.5 years for those surviving the first year. When the QRS duration was from 0.15 to 0.16 second, the survival times were 3.2 years for the total group and 4.8 years for those living past the first year. The average survival time was only 2.8 years for those with a QRS duration of from 0.17 to 0.18 second, increasing to 4.3 years after the first year. Those with the widest QRS, of 0.19 second and longer, had a survival period just slightly less.

There is one important exception in this group. Those patients with a QRS duration of 0.12 second, the shortest accepted as having bundle-branch block in this study, had a shorter survival time than those with a wider QRS duration up to 0.17 second. The shorter survival time applied to those with either right or left bundle-branch block. It was concluded after a study of many possible factors that hidden, rapidly progressive coronary artery disease in the males of this group was the important factor causing the higher mortality for the group as a whole.

SUMMARY AND CONCLUSION

The newer aspects of the diagnosis of bundle-branch block are discussed. They include: (1) the importance of the precordial leads, (2) the frequent existence of right bundle-branch block with a QRS duration distinctly shorter than 0.12 second, (3) the possible occurrence of left bundle-branch block with a QRS duration slightly shorter than 0.12 second, (4) the possible occurrence of the electrocardiographic pattern of bundle-branch block without an anatomic or even a physiologic defect in a bundle branch, that is, with the possible cause for the delayed conduction lying in the free lateral wall of a ventricle.

An analysis of the survival time of 836 patients with bundle-branch block seen at Massachusetts General Hospital between 1937 and 1948 is presented. The criteria for the diagnosis of these cases included a QRS duration of 0.12 second or greater in the presence of normal sinus rhythm and a P-R interval between 0.12 and 0.20 second.

The following factors in relation to survival time are discussed: right or left bundle-branch block, age, sex, etiology, size of heart, and duration of the QRS complex.

Bundle-branch block in itself is not the most important factor in deciding the prognosis of the patient having cardiac disease with such an electrocardiographic abnormality. Most important is the status of the patient's cardiac condition as determined by the etiology of the heart disease; the heart size; the presence or absence of subjective or objective evidence of heart failure; the presence of hypertension, valvular disease, congenital heart disease, or pulmonary embolism; and the possible occurrence of myocardial infarction. When bundle-branch block is noted in the electrocardiogram without other evidence of heart

disease, it should not be concluded that the patient has serious heart disease; a complete cardiac study is needed for that decision. The presence of bundle-branch block in such a patient is a challenge, and careful observation over a sufficient period is necessary before reaching a final diagnosis.

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ABSTRACT OF DISCUSSION

DR. PAUL V. LEDBETTER, Houston: Several years ago in a tour of study in several medical centers, I noted the importance placed on values of diagnostic procedures. The ability of the physician as an internist was placed at from 83 to 87 per cent in importance, whereas laboratory, roentgenologic, electrocardiographic, and other studies were given from 13 to 17 per cent credit. These figures, based on top-flight ability, may explain many flagrant errors in diagnosis that one sees in everyday medical life. Too many really superb general practitioners who have keen alert diagnostic minds sabotage themselves by taking on laboratory, roentgenologic, and electrocardiographic burdens that actually require many years of study and experience and not merely several weeks of exposure.

I think the paper by Colonel Johnson and his associates emphasizes that what the patient tells of his symptoms and what the doctor finds on physical examination are by far more important than the fact that the electrocardiographic report reveals a right or left bundle-branch block, complete or incomplete. It is important and necessary to have such an analysis as is here presented to realize that all is not lost when bundle-branch block is reported. Without fail, the most able interpreters of electrocardiograms wish as much information as possible about the patient in order to give a worth-while conclusion.

Hypertrophy and dilatation often may be the cause of bundle-branch block and may be diagnosed by the point of maximal apex impulse, which may be seen by the eye, felt on palpation, or determined by percussion. Left bundle-branch block means coronary or hypertensive disease and right bundle-branch block means rheumatic or congenital disease; when right bundle-branch block is transient, pulmonary embolism may be suspected. In any case, the wider the QRS, the more serious the outlook. However, age, etiology such as advancing coronary disease or congestive failure, and other factors are more important than the presence of some sort of bundle-branch block.

Too often trivial variants in electrocardiograms are enough to cause improper diagnosis and may imprison the patient to a life of fear and apprehension. To the patient and many physicians, the simple statement that something is wrong with the heart, even though it may be a slight abnormality, spells doom or invalidism.

The findings from various heart studies should emphasize what a remarkable organ the heart is and the tremendous range of adaptation which it has for almost any conceivable obstruction to its mechanism or barrier to its function. The recent campaign of the American Heart Association should mean even more hope for the future.

Drop in Tuberculosis Death Rate

The nation's death rate from tuberculosis dropped about 9 per cent in 1949 to 26.2 per 100,000 population, Dr. R. Palmer Dearing, acting surgeon general of the Public Health Service, reported in May.

During the first eleven months of 1950, a further decline of 15 per cent occurred. The rate for this period was 22.6 per 100,000 population. Dr. Dearing explained that these figures are provisional as data for 1949 and 1950 were based on a 10 per cent sample of death certificates obtained from each state and the District of Columbia. The report also states that because the death rate for 1950 was based on figures for 11 months only, no aggregate decreases in the tuberculosis death rate since 1948 can be computed at this time.

For almost half a century the death rate in the United States for all forms of tuberculosis has shown a downward trend, except for a slight rise in 1917 and 1918.

RESEARCH ON ATOMIC BLAST BURNS

Ten universities and medical schools have received funds from the Navy Department for a program of research on "flash" burns, injuries resulting from exposure to atomic blast.

The program is to consider all distortions of natural processes of the body such as might occur in the wake of blasts. It is hoped that as a result of this research new means of protecting military and civilian personnel from burn injuries will be discovered and methods of treating flash burn casualties devised.

SURGICAL TREATMENT OF VARICOSE VEINS

ALBERT W. HARTMAN, M.D., San Antonio, Texas

FOR centuries varicose veins have constituted a serious and common problem. The vast amount of literature on this subject is indicative of the prevalent dissatisfaction with treatment.

Symptoms are varied, and their severity is not necessarily correlated with the extent of the varicosities. Pain, the most common symptom, may range from mild discomfort after exertion to severe aching in the upright position. The type of discomfort associated with varicose veins and venous congestion is fairly characteristic. It comes on gradually in the standing position or while walking, as a tight feeling and aching sensation. Relief is obtained by elevation of the legs for from twenty to thirty minutes. This is in sharp contrast to the onset and relief of pain of arterial insufficiency. In the latter disease the pain is sudden in onset, may be cramping in character, and is relieved with a few minutes of rest without elevation of the legs. Recurrent attacks of painful superficial thrombophlebitis are common in the presence of varicose veins. Easy fatigue and shortness of breath may also occur with varicose veins and may be due to the pooling of blood in the large varicosities. Slight swelling present at the end of a day of standing may disappear overnight or swelling may be severe and constant. Discoloration and ulceration of the leg usually denote long-standing and unsupported varicosities, and, if severe, the possibility of an underlying chronic venous occlusion must be considered.

HISTORY

The proper therapy of any condition is predicated upon the proper diagnosis. In diagnosing varicose veins, a carefully taken history is as important as the physical examination. It should be ascertained whether the onset was sudden or gradual and whether associated with pregnancy, injury, or rapid gain in weight. In some cases of sudden onset and rapid development, arteriovenous connections have been found at surgery.

When the onset is associated with pregnancy or rapid gain in weight, the possibility of spontaneous cure must be considered. Both of these conditions can cause sufficient increase in venous pressure of the lower extremities to dilate the veins, resulting in a valvular incompetence. With termination of pregnancy or reduction in weight the pressure may fall, allowing the veins to contract to normal size and permitting the valves to become competent.

In those cases of gradual onset and slow development, etiologic factors such as previous thrombophlebitis or occupational hazards may be found. Symptoms may have been present since the appearance of the varicosities or may have occurred late in the disease. Treatment may be sought for cosmetic reasons even though symptoms do not exist.

In taking the history particular attention should be paid to:

1. *Previous Thrombophlebitis.*—To determine the presence of previous thrombophlebitis requires careful questioning regarding complications after illnesses, operations, or pregnancies which required long periods of bed rest as well as any episode of swelling of an extremity in the past.

2. *Cardiovascular Disease.*—If cardiac disease is responsible for swelling of the extremities, pain, shortness of breath, and fatigue, elimination of incidental varicose veins will bring disappointing results both to the patient and doctor.

3. *Pregnancies.*—Varicose veins may have occurred during previous pregnancies only to disappear from three to six months after termination of the pregnancy. A recent pregnancy introduces the possibility of spontaneous cure.

4. *Injuries to the Extremities.*—Injuries may have resulted in thrombophlebitis or traumatic occlusion of the veins. Deformities that will make therapy more hazardous may have developed. Arterial insufficiency or arteriovenous fistulas may have resulted.

5. *Thromboangiitis Obliterans (Buerger's Disease).*

6. *Arteriosclerosis Obliterans.*

7. *Raynaud's Disease.*

8. *Diabetes.*

Any of the above conditions that result in arterial insufficiency markedly increase the hazard of venous surgery.

9. *Obesity (Past or Present).*—In this condition associated with varicose veins, control of the obesity is frequently far more important than correction of the varicosities.

The family history is important because of the well known familial tendency toward varicose veins. The occupation is important as those persons who are required to spend a lot of time standing are prone to develop varicose veins.

PHYSICAL EXAMINATION

The necessity of a complete physical examination is obvious. In examining the lower extremities, it is my policy to proceed in the following manner:

Arterial circulation is carefully evaluated. The quality of the pulses is determined in the femoral, popliteal, dorsalis pedis, and posterior tibial arteries. Each leg is then elevated for thirty seconds and the degree of blanching noted. With the patient sitting, the legs are allowed to hang over the examining table, and the presence or absence of abnormal redness is observed.

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The leg is inspected for ulcers, pigmentation, or scars indicating old, healed ulcers. The feet are carefully inspected for fungus infection and excessive sweating. The amount of swelling is ascertained by firm pressure over the tibia and the amount recorded with a notation as to the length of time the patient has been up prior to examination.

The circumference of the leg is measured at corresponding levels and the length from the anterior superior iliac spine to the internal malleolus recorded. A difference in the circumference, particularly below the knee, of more than 2.5 to 3 cm. is suggestive of a previous deep thrombophlebitis. Varicose veins are not likely to cause this much difference unless there is an associated ulcer and cellulitis to account for the swelling.

The patient stands to allow the varicose veins to fill. With the patient standing and the veins distend-

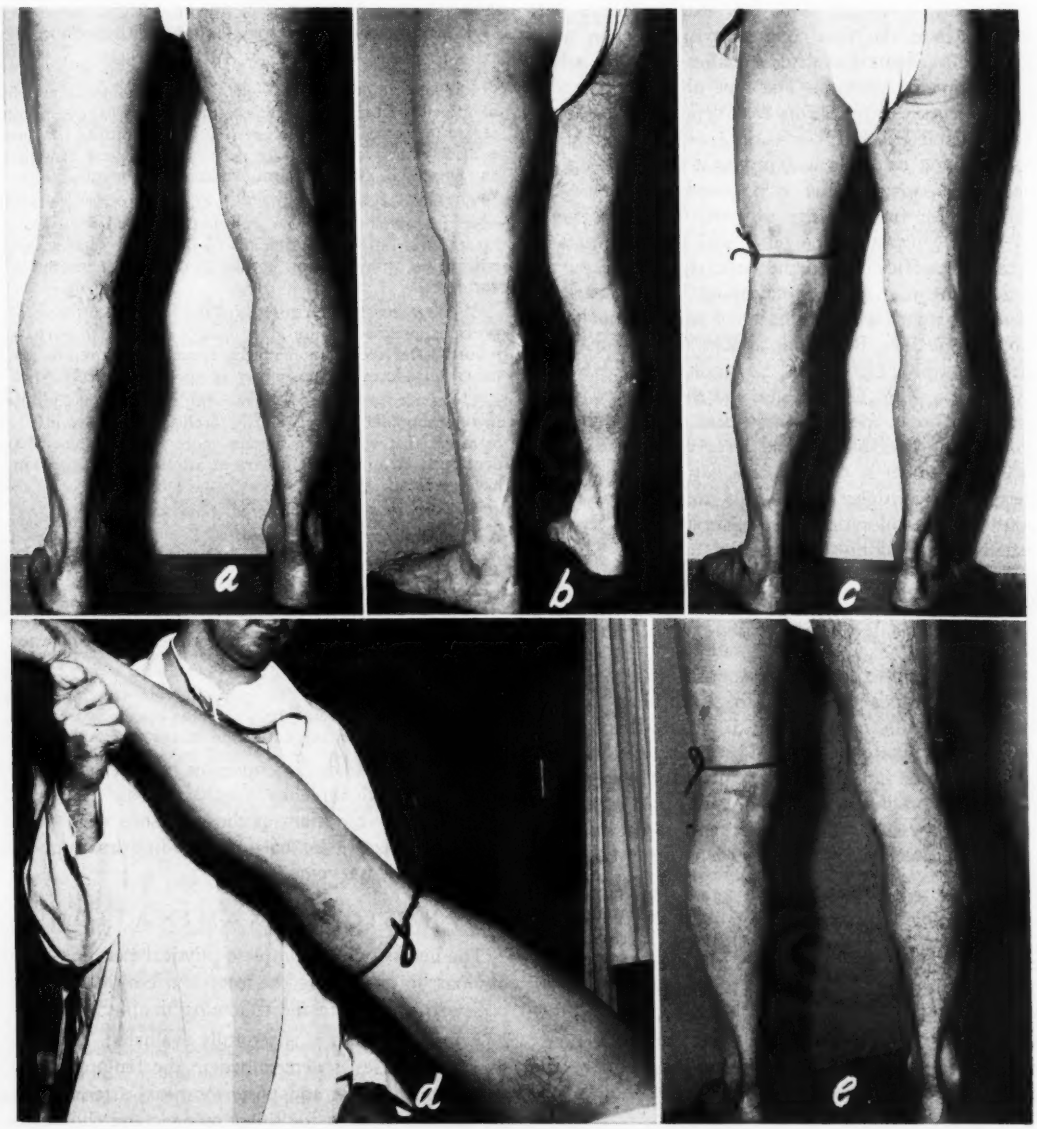

FIG. 1. Photographs demonstrating the recommended method for examining varicose veins of the leg. *a* and *b*. Two views of the patient standing before the tourniquet is applied. *c*. Application of the tourniquet with the patient standing. *d*. Elevation by the examiner of the leg with the tourniquet in place and with the patient lying down. Note the prompt emptying of the vein. *e*. The patient standing with the tourniquet in place. Note the failure of the vein to fill.

ed, a light rubber tourniquet is placed above the knee sufficiently tight to occlude the superficial veins only. The patient then lies down, and the leg is elevated by the examiner. In the presence of adequate deep veins, the varicose veins will empty rapidly even though the tourniquet is in place. The patient then stands with the tourniquet remaining in position. In the presence of adequate deep circulation with competent valves, the varicose veins will fill very slowly. By observation, as the veins slowly fill with the tourniquet in place, it is often possible to locate the areas where incompetent perforators are present. In the presence of incompetent deep valves and perforators, the veins will fill rapidly. If doubt remains as to the location of the incompetent perforators, this examination procedure can be repeated with the tourniquet placed at different levels.

TREATMENT

Before definitive treatment for the varicose veins is done, the complications must be controlled, which implies the elimination of infection, dermatitis, and, if possible, the cure of ulceration. The complications can be controlled by suitable antibiotic drugs and supporting dressings such as Unna paste boots, elastoplast boots, elastic bandages, and elastic stockings. As a rule, the bland local applications are preferable. For the eczema, 3 per cent ichthyol in zinc oxide is efficacious. In some instances bed rest is necessary to prepare the patient for surgery.

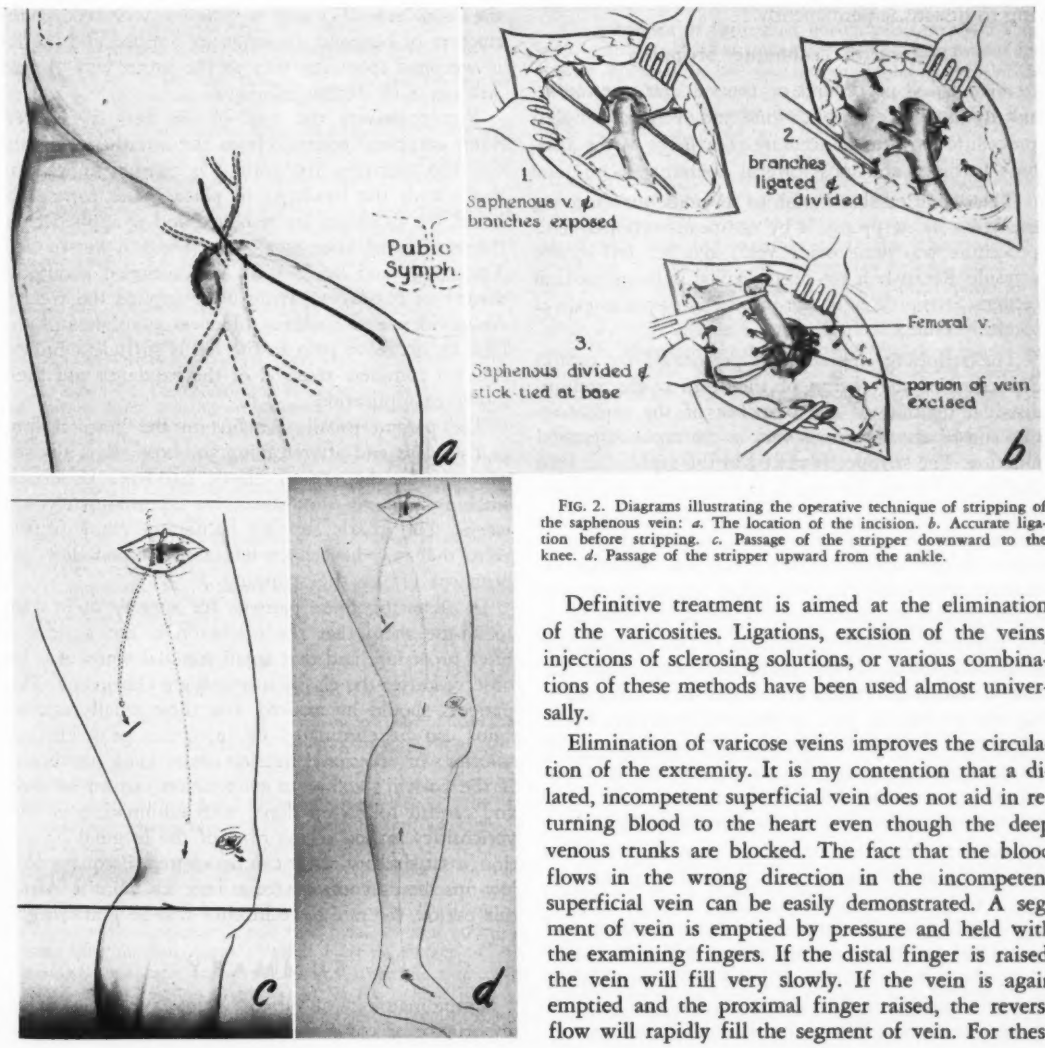

FIG. 2. Diagrams illustrating the operative technique of stripping of the saphenous vein: *a*. The location of the incision. *b*. Accurate ligation before stripping. *c*. Passage of the stripper downward to the knee. *d*. Passage of the stripper upward from the ankle.

Definitive treatment is aimed at the elimination of the varicosities. Ligations, excision of the veins, injections of sclerosing solutions, or various combinations of these methods have been used almost universally.

Elimination of varicose veins improves the circulation of the extremity. It is my contention that a dilated, incompetent superficial vein does not aid in returning blood to the heart even though the deep venous trunks are blocked. The fact that the blood flows in the wrong direction in the incompetent superficial vein can be easily demonstrated. A segment of vein is emptied by pressure and held with the examining fingers. If the distal finger is raised, the vein will fill very slowly. If the vein is again emptied and the proximal finger raised, the reverse flow will rapidly fill the segment of vein. For these

reasons, I believe that the dilated varicose veins should be eliminated even though there is evidence of deep venous involvement.

Simple ligation was so commonly associated with recurrence that the need for something further was obvious. Local injections likewise were followed by recurrence in a high percentage of cases. The retrograde injection at the time of ligation has been so frequently associated with serious complications that I am of the opinion it should not be done. There have been several case reports of vascular spasm after retrograde injection which were so severe and refractive to treatment that amputation was necessary. In my own experience I have seen such severe thrombophlebitis follow retrograde injection that I am willing to discard it permanently.

Operative Technique: Stripping

All surgical procedures on the vascular tree can result in disastrous complications, and even the simplest procedure requires an accurate knowledge of the anatomy involved and most careful operative techniques.

The operation that I wish to recommend, removing the veins by stripping, is by no means original. This procedure was done many years ago but fell by the wayside. Recently it has been revived in many medical centers. Stripping with the internal stripper is safe if carefully done.

The stripping operation is performed by careful dissection of the region of the fossa ovalis and individual ligation of the branches of the saphenous tree and of the saphenous vein at the saphenoremoral junction. The stripper is placed in the saphenous vein and guided down the leg. It is frequently impossible to pass the stripper further than just below the knee, where incision should be made and the thigh segment of the saphenous vein stripped out. An incision is then made near the ankle, and the lower end of the greater saphenous vein is picked up. The stripper is passed upward in the vein to the incision just below the knee. Where perforators have been observed, additional incisions should be made, ligating the perforator, and, if possible, stripping out a segment of the superficial vein. In cases of numerous varicosities, stripping could go on interminably. Good judgment frequently dictates that some of the veins will have to be left behind for later treatment.

I have adopted the method of preparing the area for surgery by scrubbing with surgical soap containing hexachlorophene (G-11). The legs are shaved and carefully scrubbed the night before surgery and rescrubbed in the operating room. After the night scrub, the patient stands until the veins are dilated; these are marked with a saturated alcoholic solution of gentian violet. When the dye dries, the patient goes to bed. After preparation on the morning of surgery, sufficient gentian violet remains to mark the location of the varicosities.

Stripping of the varicose veins should be performed under general anesthesia, but anesthesia does not need to be deep. In the hands of the trained anesthetist, Sodium Pentothal is usually adequate.

The Trendelenburg position lowers the venous pressure in the legs, thereby reducing the bleeding. As the stripper is pulled out, the perforators can be located by the pull on the skin, and the assistant can maintain firm pressure on this point for a few minutes to reduce the subcutaneous bleeding. In extreme Trendelenburg position bleeding is usually minor. Although I do not believe the type of suture material is particularly important, it has been my policy to use cotton throughout. After the incisions are closed, the skin around them is painted with compound tincture of benzoin; dressings are applied and the leg is wrapped from the toes to the groin with 4 inch Ace no. 8 or Tensor bandages.

Postoperatively the foot of the bed is elevated. After complete reaction from the anesthetic, usually the next morning, the patient is assisted in walking about with the bandages in place. After forty-eight hours, the bandages are removed and re-applied from the toes to the knee when the patient is out of bed. The nurses and house staff are cautioned about the danger of bandages having been applied too tightly. Any evidence of coldness, blueness, numbness of the foot, or excessive pain in the leg is sufficient indication for complete removal of the bandages and their looser re-application.

The patient usually remains in the hospital four or five days and after leaving the hospital is advised to continue the use of elastic bandages or elastic stockings up to the knees for approximately six weeks. The elastic support obliterates many of the veins that may have been left, as the blood flow has been cut off by the stripping.

In preparing these patients for surgery, it is wise to advise them that the operation is not a simple, brief procedure and that small residual veins may be observed after the elastic supports are eliminated. The patients should be assured that these small residual veins can be eliminated by injections of sclerosing solutions or occasional ligation under local anesthesia. If the patient's complete cooperation can be secured and careful follow-up done, with elimination of the varicosities missed at the time of the original operation, a satisfactory result can be assured. Frequent follow-ups should continue for at least six months. After this period, the rate of recurrence will be gratifyingly low.

SUMMARY

Symptomatology of varicose veins is discussed. The importance of complete history and examination be-

fore treatment is stressed. A surgical method for elimination of varicose veins is described.

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Nix Professional Building.

ABSTRACT OF DISCUSSION

DR. A. O. SINGLETON, JR., Galveston: The dangers of ligation of superficial veins in the presence of thrombosed deep veins probably has been exaggerated. As Dr. Hartman has mentioned, varicose veins probably aid little in the returning venous flow and can be interrupted even with impaired deep venous return with benefit as well as safety in most cases.

There are still seen recurrences of varicosities after high ligation of the saphenous vein at the femorosaphenous junction in cases in which the associated superficial circumflex iliac, superficial epigastric, and superficial external pudendal veins were not interrupted. Vessels must be divided as well as ligated or recanalization will occur. Secure and careful applications of ligatures is important. If the patient is to go home immediately after the procedure, the extremity should be carefully checked with the patient standing, as bleeding which may not appear in the recumbent position soon becomes evident when the venous pressure is raised.

Stripping of veins is a valuable procedure and many recent articles have advocated its use, but I do not believe it is indicated in all cases. If the varicosities can be obliterated by pressure in the saphenofemoral area, a high and in some cases a few low ligations may be all that is necessary to control the condition.

A shortage of hospital beds in charity cases may make multiple ligations at different sittings on ambulatory patients preferable to a single, more elaborate procedure requiring hospitalization. Multiple ligations also may be preferable in persons who are poor risks for general anesthesia.

While some think sclerosing agents should be completely replaced by multiple ligations, from a practical standpoint injections are useful in handling small veins after the major channels have been interrupted. I agree with Dr. Hartman that retrograde injections after high ligations should not be used. The number of complications after this method of treatment became so high in the Army during the last war that a directive was issued ordering that it be discontinued.

The treatment of varicosities during pregnancy is a common problem. Varicose veins are greatly aggravated and usually improve in the postpartum period. They can be treated surgically without danger of interfering with the pregnancy if their severity warrants, especially if they have been present before the onset of pregnancy.

DR. JOHN M. THIEL, Galveston: I was glad to hear Dr. Hartman's views on the management of the patient with varicose veins but wish to differ with him in some aspects of the treatment. It is not the opinion of the majority of surgeons who have had extensive experience that such veins should be stripped routinely; rather they believe, and I concur, that the majority of patients can be treated satisfactorily by high and low ligation of the saphenous vein with ligation of all the tributaries at the saphenofemoral juncture. I agree with Dr. Hartman that these patients' conditions should not be taken lightly, and ligation should not be considered an office procedure. It is important, as he emphasized, that such patients be thoroughly examined preoperatively, not only to determine accurately the exact status of the varicose veins as regards retrograde flow from the femoral system but for adequate arterial blood supply to the extremities, for any etiologic factors in the production of the varicosities, and for any possible contraindication to surgery.

The most common error in the treatment of varicose veins is the promiscuous injection of varicosities without examination as outlined previously and without evaluation of the proper procedure to be done on the individual patient. In surgery, the most frequent mistake is in inadequate operation, the saphenous vein usually being ligated only at the high level in the groin but below many of the tributaries at the saphenofemoral juncture. When indicated by tests, it is essential that the main saphenous trunk be ligated high in the groin and severed and that all tributaries at the saphenofemoral juncture likewise be ligated and cut, the femoral vein being clearly exposed during the procedure. When tests indicate an incompetency in the valves of the communicating veins, a low ligation of the saphenous vein should also be done.

Because of these common errors, saphenous ligation often fails. In a rather extensive experience in the treatment of varicose veins, it has been my observation that if the previously-named principles are followed, good results are obtained in at least from 85 to 90 per cent of patients. For patients not obtaining good results by this procedure and others selected because of exceedingly large varicosities and numerous deep perforators, vein stripping might be resorted to. That properly done high and low ligation of the saphen-

ous vein with ligation of all tributaries at the saphenofemoral juncture is the treatment of choice in the majority of patients is concurred in by such authorities as Ochsner and Mahorner.

In my opinion, the retrograde injection of a sclerosing solution at the time of operation is justifiable. I have seen no ill effects that definitely could be attributed to retrograde injection per se and believe that it has many advantages. In the Department of Surgery at the University of Texas School of Medicine, we have used sodium tetradecyl sulfate for this purpose in the past seven or eight years. This solution is manufactured by Wallace and Tiernan under the name Sodium Sotradecol; I believe it to be the best sclerosing agent for therapy of varicose veins. It is usually necessary to inject those varicose veins still patent after operation by office treatments once or twice a week until they have all been obliterated. I would also like to emphasize that such patients should be checked approximately twice a year so that any localized varicosities that may have developed may be injected and sclerosed.

By using the principles of treatment which I have outlined, I have obtained excellent results in the management of varicose veins.

DR. PENN RIDDLE, Dallas: When poor results occur from operations on varicose veins in patients in whom there is a past history of "deep" thrombophlebitis, the valves in the "deep" system have been broken down and no longer function.

Ligation of the superficial femoral vein along with a lumbar sympathectomy has been advocated by Ochsner, Pratt, and others. Linton and others in Boston believe that sympathectomy causes too much blood to be delivered to a part which has too much blood already. Moreover, they maintain that better results are obtained from ligation of the superficial femoral vein and the popliteal vein along with stripping of the great saphenous vein and the lesser saphenous vein also when it is involved.

Since so many methods have been tried with only mediocre results, it appears that surgery is only a supplementary measure and that in most cases pressure methods such as elastic bandage, elastic stockings, elastic adhesive, gauze casts, and other supportive measures which tend to compensate for the permanent loss of the valves in the "deep" veins must be depended upon.

CHOICE OF INTRAVENOUS FLUIDS

MERTON M. MINTER, M. D., F.A.C.P., San Antonio, Texas

FLUIDS and electrolytes are given to correct some excess or some deficit in the patient's water balance. Obviously it is impossible for the physician to select the proper solution without deciding what he wishes to correct. Accurate measurement of water balance is difficult and at present not clinically feasible.[9] Except for tests for serum sodium and potassium and measurements of sodium excretion in the urine, laboratory aids must be secondary to the clinical evaluation at the bedside. However, evaluation of the history and physical findings in view of the common clinical syndromes associated with alterations of salt and water offers a practicable guide to the choice of solutions for intravenous therapy when such treatment seems indicated.

If the physician will ask himself, "In the light of the history and physical findings, does the patient need water or salt or both?" a long step toward the selection of the proper fluid can be made. This question decided, the physician must ask if the patient needs food, base, potassium, or sedation. Depending upon the answers, the physician can select a fluid which will help supply or correct the excesses or deficits present.

SOLUTIONS

Nine solutions will meet most requirements, and table 1 shows their contents and chief indications.

Read before the Section on Internal Medicine, Texas Medical Association, Annual Session, Galveston, May 2, 1951.

Dextrose or Invert Sugar in Water.—Sudden withdrawal of fluid by mouth produces a deficit of water and a relative concentration of solutes which are not excreted by the kidneys quickly enough to compensate for the acute deficiency of water. Thus at first there is a water deficit only. Later the kidneys attempt to excrete the solutes, and there is a deficiency of both salt and water. Still later, in severe chronic water loss, the body will conserve salt, resulting in a severe deficit of water, a less severe deficit of salt, but an actual deficit of both. This pattern is a frequently overlooked and important factor in geriatric patients. In acute water loss, water alone need be replaced, and a solution of dextrose in distilled water is ideal. Later, in chronic water loss, because there will also be an electrolyte deficit, water plus electrolytes should be used. If food in addition to water is needed, the stronger concentrations of dextrose or invert sugar may be used.

Since water acts as a diuretic and salt and water as an antidiuretic, dextrose in water is the solution of choice in the presence of ascites or kidney damage with salt retention. Severe azotemia may require from 6,000 to 8,000 cc. of water daily, and only dextrose in distilled water, if anything, can be excreted by damaged kidneys in such quantities. In patients with a very high nonprotein nitrogen level in the blood continuous administration through a polythene tube of dextrose in water is usually well tolerated even in the presence of congestive failure.

Postoperatively, Moyer[4] has shown that for the

first day or so water deficit alone is usually present, and water alone should be given. Excess salt, even 500 cc. of normal saline solution daily, may cause swelling of tissues operated upon or traumatized and increase pulmonary complications, especially in the aged. The common practice of using saline infusions postoperatively and after trauma should be discontinued unless signs of a salt deficit are present.

Sodium excess from failure of the kidneys to excrete the usual amounts or from excessive administration requires water to dilute the excess solutes, to carry them to and through the kidneys, and to prevent changes in acid-base balance. The syndrome of "acute salt intolerance,"[4] in which a person with a sodium excess and an edema may develop anuria, is probably due to a severe *relative* deficit of water as compared with salt, even though there may be an absolute increase in the body water sufficient to produce edema. Correction of such states by administration of large quantities of water, as advocated by Schemm,[8] enables the body to make available to the kidneys water for excretion, which in turn serves to eliminate the excess sodium. Thus water and sodium chloride are mobilized for excretion instead of being held inertly in the body as edema fluid.

If invert sugar is used, twice as many grams of dextrose may be given in the same infusion time, since utilization of invert sugar by the body is twice as rapid and complete.[10] Furthermore, either 5 or 10 per cent invert sugar may be administered subfascially with excellent absorption and minimal discomfort.[7] Hyaluronidase is useful in lessening the discomfort in subfascial injections.

Normal saline solution often is used when other solutions would be better and often is given in amounts which will produce a salt excess. The average person consumes from 9 to 12 Gm. of salt daily although he probably needs not more than 1 Gm. under normal conditions. One liter of normal saline solution contains 9 Gm. of salt, which is more than most ill persons can excrete, since even a normally healthy adult cannot excrete postoperatively more than 5 Gm. in twenty-four hours and the aged and infirm considerably less[4]. Therefore, this solution should be limited to its definite indications.

Gastrointestinal fluids from the ileum up contain some sodium and more chloride. Loss of such fluids from vomiting or high intestinal intubation consequently is an indication for normal saline solution. Peters[5, 6] has stressed the importance of giving nothing by mouth to such patients, since fluids will tend to wash out electrolytes and make electrolyte control more difficult. Gastric drainage decreases to almost nothing if oral intake is stopped.[2]

Excessive sweating[1] produces a greater water than salt loss; insensible sweat contains practically no salts. Marked sweating will cause some sodium chloride loss through the sweat, and because of fluid loss, the kidneys will excrete more sodium to compensate for water loss. Therefore, normal saline solution is indicated.

Sodium depletion from prolonged low sodium diets usually can be corrected orally. Acute sodium deficit with water excess may require parenteral therapy.

Addison's disease and diabetic coma are special problems which will not be discussed except to include these conditions as indications for saline therapy.

Dextrose in Saline Solution.—The indications for dextrose in saline solution are the same as for saline solution plus a need for carbohydrate.

One-sixth molar lactate solution is an isotonic solution which furnishes sodium without chloride,

TABLE 1.—*Contents and Indications for Use of Fluids Used Intravenously.*

Solution	Composition	Indications for Use
Dextrose or invert sugar in water	Dextrose: 5-10% in distilled water Invert sugar: 5-10% in distilled water	When water deficit is not accompanied by salt deficit: water deprivation, severe liver disease, renal impairment, hypoglycemic shock, postoperative care, sodium excess
Normal saline	0.9 Gm. sodium chloride per 100 cc. water	Loss of gastrointestinal fluids from ileum up, excessive sweating, Addison's disease, diabetic coma, prolonged low sodium diet or parenteral fluids without sodium (provided chloride loss equals or exceeds sodium loss)
Dextrose in saline	Normal saline plus 5-10% dextrose	Same as for normal saline plus need for food
1/6 Molar lactate	1.87 Gm. sodium lactate per 100 cc. solution	Acidosis
Ringer's	0.86 Gm. sodium chloride, 0.03 Gm. potassium chloride, 0.03 Gm. calcium chloride, 0-5-10% dextrose per 100 cc. solution	Gastrointestinal fluid loss from vomiting or suction, nephritis, ketosis
Hartmann's	0.6 Gm. sodium chloride, 0.3 Gm. potassium chloride, 0.2 Gm. calcium chloride, 0.3 Gm. sodium lactate, 0-5-10% dextrose per 100 cc. solution	Biliary or pancreatic fistula, ileostomy drainage, severe diarrhea, acidosis, nephritis, burns
Darrow's	0.4 Gm. sodium chloride, 0.26 Gm. potassium chloride, 0.59 Gm. sodium lactate per 100 cc. solution	Potassium lack or loss: infant diarrhea, hypopotassemia, prolonged parenteral therapy
Protein hydrolysate	5.0 Gm. protein hydrolysate per 100 cc. distilled water plus, if desired, 5.0 Gm. dextrose or 7.5 Gm. alcohol	Protein or food deficiency: fever, albuminuria, cirrhosis, acute or chronic need for food
Alcohol	5 Gm. alcohol, 5 Gm. dextrose per 100 cc. water or saline	Postoperatively, angina pectoris, prolonged pain, need for calories and fluid

and its only indication is in acidosis. After injection of the solution the sodium is combined with bicarbonate and the lactate is metabolized. Since severe liver damage may prevent the metabolism and sodium release, sodium bicarbonate should be used when such liver damage is suspected.

Ringer's solution is essentially a normal saline solution plus potassium and calcium salts. It is available with or without dextrose. Ringer's solution is a more complete solution for replacement in electrolyte loss and probably is preferable in general to the use of saline solutions. Except in a rare case in which potassium might be in excess, the use of Ringer's solution is more physiologic for the correction of body dehydration, fluid replacement, and electrolyte balance. Nevertheless, it is less preferable in general than Hartmann's solution.

Hartmann's solution is balanced for the correction of dehydration, electrolyte loss, and acidosis. Its indications are in biliary and pancreatic fistula drainage, severe diarrhea, acidosis, nephritis, and burns. This solution more readily replaces the normal electrolyte balance of the body than any other available. It contains considerably less sodium chloride than does normal saline or Ringer's solution, and it does contain some of the other essential salts for physiologic balance. It might well replace some of the more commonly used solutions when both fluids and electrolytes are desired.

Darrow's solution contains almost ten times as much potassium as Hartmann's solution and therefore is particularly valuable in conditions associated with a high potassium loss. Infant diarrhea, prolonged parenteral therapy with potassium free solutions, and other conditions in which a known hypopotassemia is present, such as certain stages of chronic nephritis and diabetic acidosis, are indications for this solution. Since the potassium content of the body in the two latter conditions may vary from potassium poisoning to severe potassium depletion, the physician must be sure of the clinical state present before applying therapy.

Protein hydrolysate solution is indicated primarily for the correction or prevention of protein deficiencies such as occur in fever, albuminuria, and cirrhosis of the liver and occasionally after blood or plasma loss. The addition of dextrose, if desired, will help conserve protein, and if more calories are needed and alcohol is not contraindicated, these three substances will most nearly supply the caloric needs of the body in a reasonable amount of fluid. A 1,000 cc. solution containing protein, dextrose, and alcohol will supply 820 calories. Grabill and others[3] have reported that the use of this solution postoperatively helps prevent atelectasis by increasing respiration, serves as a coronary dilator, aids sedation, lessens pain, and keeps the patient in positive nitrogen and caloric balance.

Since the average adult will metabolize 10 cc. of alcohol per hour, 200 cc. of the solution should be given in the first twenty to thirty minutes and the remainder of the infusion should cover four or five hours if analgesia and sedation are desired. A sense of relaxation, well being, and mild euphoria may thus be maintained for several hours during and after the infusion. Some care must be exerted to watch the patient and reduce the rate of infusion if any signs suggesting inebriation appear.

One gram of procaine hydrochloride may be added with notable increase in the analgesic properties of the solution.

Alcohol solutions without protein hydrolysate may be used when additional protein is not desired. The rate and precautions for administration are the same.

In severe recurrent angina pectoris alcohol solutions, especially when procaine is added, may be given with great relief to the patient. When fluids are needed in this or other conditions where prolonged pain is a factor, the mental repose, relaxation, and freedom from worry after infusion of this type of solution will often be striking. It will lessen the need for opiates, avoid respiratory and mental depression, not cause nausea or vomiting, increase urinary output, dilate the coronary arteries, and lessen the need for catheterization. Given intravenously it will not ruin the stomach and may produce a pleasant glow.

SUMMARY

Nine groups of solutions for intravenous therapy are discussed. Consideration of what the patient may need and a knowledge of what solutions may best fill those needs will enable physicians to select more wisely the solutions they use.

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Nix Professional Bldg.

ABSTRACT OF DISCUSSION

DR. RAYMOND GREGORY, Galveston: The selection of a fluid for its food value content of glucose, invert sugar, or protein hydrolysate need give no difficulty. The use of the correct solution for the prevention and correction of electrolyte disturbances, however, can be arrived at only after a precise clinical analysis of the patient's symptoms and signs, supported by adequate laboratory data.

The physician who wishes to handle correctly the more difficult disturbances of the electrolytes must be aware of the quick results which the interpretation of an electrocardiogram may afford. It is preferable, however, to have chemical and flame photometric evaluations of the serum and urinary chlorides, sodium and serum potassium levels, and the carbon dioxide combining power. The flame photometer is readily available and is not at all beyond the price of any hospital or private laboratory.

It must be admitted that most of the serious electrolyte disturbances are produced by physicians. The reasonably normal kidney can be depended upon to maintain homeostasis with almost any fluid under simple circumstances. Excessive sodium restrictions, with mercurial diuretics, cation exchange resins, or gastric or intestinal suction will continue to result in near or actual disaster if the clinical states produced by these procedures are not prevented and corrected by the proper intravenous fluids.

PSYCHOSES RELATED TO CHILDBIRTH

ALFRED H. HILL, M.D., and DAVID M. KEEDY, M.D.
San Antonio, Texas

SIXTEEN serial cases of psychosis related to pregnancy are reported in this paper. These cases were encountered in the private practice of psychiatry and treated principally at Santa Rosa Hospital, San Antonio.

The state of pregnancy and its aftermath produce no unique psychosis. Certain childbearing women develop one or another form of derangement due to the toxic, infectious, or psychic traumas incident to the experience. The clinical form which the illness takes is predicated to a large degree by the personality structure of the patient.

Stander[8] reported an incidence of .12 per cent in 34,356 deliveries. Yaskin[10] estimated that there is one chance in a thousand of a childbearing woman becoming psychotic.

PATIENTS IN THIS SERIES

Table 1 summarizes the illness type and morbidity in this series. Thirteen patients were schizophrenic and 3 manic-depressive. Of the latter, 2 were in the depressed phase and 1 manic. Almost half (7) of the patients had experienced previous psychiatric disturbance reaching clinical proportions.

The mildest of these preceding reactions occurred in a bipara mother. During ether administration at the time of the first pregnancy, she dreamed that she was in heaven. Her brief, postanesthetic delusion was furthered, she stated, by talk in the operating room, which may be a compliment to the piousness of the staff. She suffered a subsequent anxiety state lasting several weeks. After her second delivery she developed a full-blown catatonic schizophrenia.

Three of the 7 had had definite previous psychotic episodes, with one related to the first pregnancy. The latter was apparently precipitated by illness of the child.

TABLE 1.—*Illness Type and Morbidity.*

	Schizophrenia	Manic-Depressive	Total
Number	13*	3	16
Previous psychiatric illness	6	1	7
Primipara	8	2	10
Multipara	5	1	6
Organic morbidity			
During pregnancy	2	2	4
During puerperium	0	1	1
During lactation	0	0	0

*1 "hysterical psychosis"

The illness in 10 patients was related to a first full term pregnancy. The average age of the mothers was 24.1 years, with a mode at 24 years. Four occurred at the second pregnancy and one each with a third and a fifth pregnancy. The average age for the multiparas was 28.8 years with a mode at 29 years.

Organic morbidity occurred in 5 patients. Four were threatened with miscarriages and 1 patient suffered thrombophlebitis in the puerperal period.

TABLE 2.—*Onset Time of Psychiatric Illness*

	Recognizable Prodromata	Clinical Psychosis
During pregnancy (trimesters)		
1	5	0
2	1	0
3	2	1
Postpartum (weeks)		
1		3
2		5
3-4		2
5-6		2
7-9		1
10-12		2

Establishing the date of onset of psychiatric symptoms is always difficult, but table 2 suggests the time of onset of symptoms in the present series. "Recognizable prodromata" does not imply that a

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psychiatrist at that time could have anticipated a psychosis several months later but indicates definite emotional disturbances were noted by the family or the obstetrician. The 5 patients who were disturbed at the onset of pregnancy required constant reassurance and were fearful generally of their state.

One patient frankly resented the pregnancy; another was advised to become pregnant to cure her markedly dependent, neurotic state. These women at best were ambivalent regarding their pregnancies. Half the patients exhibited identifiable prodromal symptoms or signs. The clinical onset of psychotic behavior, while tending to group in the second week postpartum, spread from the third trimester, with 1 case being psychotic a month before delivery, to twelve weeks postpartum.

TREATMENT

Social remission, that is, return to normal family living, resulted without specialized hospitalization in 12 of the 15 patients whom we treated (table 3). With one exception, all of these patients were given combined electroshock and office psychotherapy. The average treatment period was five weeks, and the average number of shock treatments was 10.1. Galvanotherapy was administered in a general hospital, usually on an ambulatory basis. The patients were admitted for approximately three hours on each occasion and between treatments they remained with relatives at home or in temporary lodgings.

The exception was a case included in table 1 under schizophrenia, but probably more properly termed "hysterical psychosis." This patient was given psychotherapy only. Large credit is due the family support in this case. Three patients failed to show successful or maintained remission under this program and required subsequent psychiatric hospitalization. Combined insulin and electroshock treatment in either the State Hospital or at John Sealy Hospital, Galveston, resulted in social remission in these

TABLE 3.—*Results of Treatment.*

	Social Remission
Treatment in office and general hospital only	12
Subsequent psychiatric hospitalization	3
Immediate psychiatric hospitalization	1
Total	16

3. One patient who was transferred directly to the State Hospital because of marked disturbance of behavior and economic considerations is now in the midst of a satisfactory social remission though the prognosis is guarded.

No infanticides, suicides, recognized fractures, or deaths occurred in this series of patients, although one patient made a definite suicidal gesture by drinking a negligible amount of iodine in the course of treatment. Social remission resulted from appropriate psychiatric treatment for these 16 psychotic mothers.

SUBSEQUENT COURSE

Follow-up information into 1951 is available on 13 of the patients. With the other 3 mothers the average follow-up period is seventeen months, but the period is not current. Data on all patients show an average follow-up period of 19.8 months. Eleven patients have been followed for one year or longer subsequent to beginning remissions. Letters, telephone conversations, or referring physicians have provided reports of interval progress.

One recurrence of schizophrenia after a twenty month interval has appeared in this group of 16 patients. A social remission was reached again with three months' care in the San Antonio State Hospital. A total of 6 mothers, including this recurrence, give evidence of continuing instability though the women are functioning at home without psychiatric care. The remaining 10 patients are maintaining good social remissions, according to latest information.

Two mothers have had subsequent pregnancies without mental upsets. One pregnancy followed the psychosis after three years, the other after only nine months.

DISCUSSION

The distribution of the types of psychotic illness appearing in the postpartum period varies from series to series. Boyd[1] in 1942 computed the average of series appearing in the literature from 1909 to date, including his own series, and found that 20 per cent of the psychoses were schizophrenia, 40 per cent manic-depressive, and 28.5 toxi-exhaustive. Brew,[2] basing her computation on a more recent series at the Syracuse, N. Y., State Hospital, found the distribution to be 50.6 per cent schizophrenia, 40 per cent manic-depressive, and 4.8 per cent toxi-exhaustive. In our smaller series of 16 patients, 13 had schizophrenia, only 3 were manic-depressive, and none was toxi-exhaustive.

The absence of toxi-exhaustive or delirium reactions in our series is a compliment to the obstetric practice of San Antonio and the surrounding area. These organic psychoses are related to complications occurring both during pregnancy and in the puerperium; most appear in the first week postpartum. We have seen one occasionally in consultation, but none required psychiatric management in our hands.

Treatment for these toxic psychoses, when they appear, is treatment of the complication plus supportive and protective treatment of the patients. Most patients with toxic psychoses recover. The use of adrenal cortical extract[6] or progesterone[7] has been recommended for these immediate toxic reactions.

We are unable to explain conclusively the relatively

heavy weighting of our series with schizophrenia. It is our impression that this type of psychosis is representative of the general reaction type of the population group of the area.

The incidence of 25 per cent morbidity with threatened miscarriage in this group is not noteworthy according to Dr. Coates.[3] The patient who developed a thrombophlebitis had been fearful and hypochondriacal throughout her pregnancy. She had suffered a presumably psychotic depression in 1945. Though she centered the somatic concern of her 1949 postpartum depression on her briefly disfigured leg, the latter cannot be held responsible for her illness in my opinion. Organic complications related to pregnancy cannot be weighted significantly in this series.

The outlook for psychoses of the postpartum period has improved in recent years with shock therapy. The overall expectation before modern treatment was death or custodial care in 1 out of 4 cases, including the relatively benign deliria reactions. In a 1945 review of this problem, Yaskin[10] reported a prognosis of 60 per cent recovery in manic-depressive and only 15 to 30 per cent in schizophrenic patients. The contrast between this and our series, which shows social remission of all 16 cases made up of only the more serious type of psychotic illness, is striking. Von Hagen[9] has recently reported recovery in 9 of 11 cases of schizophrenia and manic-depressive psychosis treated with electroshock and insulin.

Treatment now is usually begun immediately upon diagnosis, and although we do not subscribe to the practice, shock therapy is reported to be given safely up to the last month of pregnancy.[2] Two of our patients were started on shock treatment in the second week postpartum.

We believe that definite advantages accrue to general hospital treatment of these cases whenever possible. The unfortunate social stigma that frequently attaches to hospitalization in a psychiatric institution is absent, and the reality values of family contacts appear to have definite advantages. The ambulatory patient can follow some part of her normal routine while remaining at home and the recovery period progresses more smoothly we have found. The newborn infant is accepted gradually under the modifying influence of shock therapy rather than being a challenging stranger in the home to which the patient returns after leaving an institution.

Prevention is of major importance. Boyd[1] has stated that "The obstetrician is just as responsible for the prevention of mental disturbance in his patient as he is for the prevention of eclampsia."

Identification of the patient who may become psychotic is the first step in prevention. Zilboorg,[11] who knows this illness well, brought out the following salient points: a schizoid, withdrawn personality, is open to suspicion as being prepsychotic. The mother whose psychosexual development is correlated with long courtship, frigidity, late marriage, or hesitancy over pregnancy is suspect. An attempted abortion or investigation of its possibility indicates rejection of the child which is certain to provide later conflicts. If a woman of schizoid type has survived one pregnancy without apparent complications, a careful inquiry into her postpartum reactions is essential when another pregnancy is present.

Much has been discussed and written recently concerning education toward motherhood and preparation throughout the pregnancy for its sequelae. Such education must be intelligently directed. One of our most difficult cases, a woman who was already sensitized to psychiatric illness during her nursing experience, was subjected, traumatically, to a one hour lecture on postpartum psychosis in early gestation. This was part of a course for expectant mothers in another state.

The appearance of anxiety symptoms, withdrawal, loss of spontaneity, unfounded hostility toward husband or others, hypochondriasis, and fear are as significant and dangerous in the course of pregnancy as the appearance of increasing blood pressure and albuminuria. Psychiatric help, when any of these symptoms appear, can be prophylactically useful, but of more importance is the establishment of an understanding and confident personal relationship between the obstetrician and his patient.

Helene Deutsch, from her knowledge of the psychology of women, has suggested to obstretricians certain goals for the end of the gestational road[4]: "1. To find a technique of delivery in which the psychic value of the mother's active participation in the process is taken into account. 2. To reunite mother and child as soon as possible after birth."

Should the recovered psychotic mother have additional pregnancies? The answer must rest on the merits of the individual case. Certainly the history of a complication causing organic (delirious or toxi-infective) psychosis is no contraindication. Such a patient must understand thoroughly the causal relationship, and the doctor and patient must have no fear of a similar complication.

The answer with respect to the more serious functional psychoses such as the group herein reported must be more guarded. It was noted that 2 of these patients have had subsequent pregnancies without psychiatric complications. A fifteen year study in England of 117 first admissions to a mental hospital with this class of illness revealed that 60 patients had had prior confinements without recorded mental illness. Of 72 who recovered, 12 have had one or more subsequent confinements without breaks.[5] If

the mother is stable, demonstrates good acceptance of the child, and desires another child after a two or three year interval, we would favor her having another pregnancy. If the mother remains schizoid or unsure or accepts a potential pregnancy under duress from her husband or from others in the family, the outlook is poor. Psychiatric evaluation of the situation should be helpful in advising a mother regarding future pregnancies.

SUMMARY

There is no psychiatric illness peculiar to the postpartum period.

Sixteen serial cases of psychosis related to pregnancy which were treated in private practice are reported.

The outlook is much improved with modern treatment. Social remissions resulted in all 16 patients.

Identification of susceptible patients and prevention of psychiatric illness are stressed.

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South Texas Building.

ABSTRACT OF DISCUSSION

DR. STEPHEN WEISZ, Dallas: Dr. Hill and Dr. Keedy's paper is of considerable practical importance in that it helps to put the mental disturbances observed in the course of pregnancy into a proper perspective. The distribution of the mental breakdowns around the postpartum period and the finding that schizophrenia is the most commonly encountered condition is suggestive that actually we are not dealing with a complication of the pregnancy as such, but with the problem of schizophrenia as it appears and is influenced by the particular setting of pregnancy. This fact seems to be borne out by the further observations that some of the patients described by Drs. Hill and Keedy had previous psychiatric trouble, that others had previous or subsequent pregnancies without trouble, and that a subsequent schizophrenic episode may occur without the patient being pregnant.

The course of the schizophrenic episode precipitated by pregnancy is in no way different from schizophrenia in general. It follows the same pattern of response to treatment or occasionally lack of it, and emphasizes the advantages of prompt treatment, leading in the majority of cases to social remissions yet leaving the underlying personality vulnerable to future attacks. Here is the place where the obstetrician should be on the lookout, trying to recognize the "schizoid" make-up; by so doing, he may be able to screen out the woman for whom gestation is associated with hazards beyond the average proportions. In these cases obstetrician and psychiatrist share the responsibility of management, such cases being a problem of the particular woman pregnant rather than of a pregnant woman only. It is the decision of both physician and psychiatrist whether such a woman should be allowed to have future pregnancies.

American Association of Certified Medical Secretaries

The American Association of Certified Medical Secretaries was organized in Dallas in April to upgrade medical secretaries and medical record librarians and office nurses on a standardized nationwide basis and to function through cooperating medical placement services and certifying universities, colleges, and junior colleges.

Southern Methodist University through its evening school, Dallas College of S.M.U., started a special course on medical nomenclature in June based on the terminology text of the association, "Reporting Practice in Medical Terminology." The course, designed for medical record librarians, medical secretaries, office nurses, teachers in technical stenography, premedical students who write shorthand, and reporters in personal injury cases, deals with terminology of gross anatomy, pathology, psychiatry, operative procedures, plastic surgery, fractures and amputations, clinical chemistry, bacteriology, blood analysis, urinalysis, and x-ray findings.

Certificates from an accredited school offering the course on medical nomenclature, as well as another course on medical procedure, plans for which will be announced later, will qualify a medical record librarian, medical secretary, or office nurse for membership in the American Association of Certified Medical Secretaries.

Further information may be obtained from Queena Hazelton, 6957 Bob O'Links Drive, Dallas.

Exfoliative Cytology Courses

Two courses in exfoliative cytology are to be offered by Cornell University Medical College, New York, the first course beginning September 17 and ending December 14 and the second March 3 to May 29, 1952. The courses will cover the cytology of the female genital, gastrointestinal, respiratory, and urinary tracts, as well as exudates. Information and application blanks may be obtained by writing to Dr. John F. Seybolt, Department of Anatomy, Cornell University Medical College, 1300 York Avenue, New York 21.

THERAPY OF DEAFNESS

WILLIAM K. WRIGHT, M. D., and FREDERICK R. GUILFORD, M. D.,
Houston, Texas

DEAFNESS is a ubiquitous condition which affects 1 person in 20 in the United States. It interferes with one of man's most important needs, that of communication. It is disabling socially, educationally, and vocationally. Patients are so frequently embarrassed by this handicap that they often become reclusive or even paranoid.

The management of the deaf patient belongs in the hands of the medical profession. Restoration of serviceable hearing is often possible, and in nonreversible deafness medical conservation of residual hearing is crucial. Physicians are becoming increasingly aware of their responsibilities to the deaf patient, and it is encouraging to note an increasing number of hearing clinics and hearing centers where problems of the deaf can be studied from every angle.

Intelligent management of deafness requires complete and correct diagnosis. This necessitates a history, examination of the ear, and voice and tuning fork tests. Complete evaluation, however, requires more complicated tests, such as air and bone conduction audiograms, speech audiometry, discrimination tests, and social adequacy indexes, or perhaps the Doerfler-Stewart test or narcosynthesis. These advanced tests are available only in specialized hearing centers and hearing clinics.

The diagnosis of deafness has previously been discussed in detail by one of us (Guilford[2]) and will not be considered further at this time. Of equal importance in the management of deafness is a complete knowledge of available therapeutic measures against deafness; it is the purpose of our paper to discuss this problem. For therapeutic purposes the following classification will be used:

1. Deafness amenable to therapy:
   a. Conduction deafness from all causes.
   b. Reversible nerve deafness.
2. Deafness which is not reversible and must be treated by other methods.

CONDUCTION DEAFNESS

The seven causes of conduction deafness are discussed in the following section.

Occlusion of the External Auditory Canal.—Diagnosis and therapy of occlusion of the external auditory canal are obvious except for osteomas and congenital bony atresia of the external canal. In some of these patients practical hearing can be restored by plastic reconstruction of the external auditory canal. Many such patients do not have an ear drum and it is necessary to apply a skin graft over the otherwise intact middle ear and atticus. In all cases a thorough study prior to surgery is important to establish the presence of adequate cochlear function.

Perforated Tympanic Membrane.—In our experience with 27 cases of perforated tympanic membrane, closure usually can be accomplished if there is a residual rim of drum greater than 1 mm. Therapy consists in destruction of the epithelium on the edge of the perforation at weekly intervals with 50 per cent trichloracetic acid after local anesthesia. Granulations thus produced slowly close the perforation. After each treatment a cotton wick is packed against the ear drum and kept moist with 40 per cent alcohol.

The hearing is usually raised to levels near normal except in cases in which middle ear adhesions are present. An accurate prognostic audiogram showing the final hearing level can be made before treatment is started by patching the perforation with Cargile membrane. Even when no hearing gain can be expected, closure will benefit the patient by preventing repeated otitis media secondary to contamination from the ear canal. Later, if better hearing is desired, a fenestration operation can be done (fig. 1a).

Absence of the Tympanic Membrane.—The tympanic membrane may be destroyed by infection or radical mastoidectomy. Mobility of the stapes is first tested with the acoustic probe (fig. 2). If touching the oval or round window will raise the free-field speech reception to serviceable levels, one of the artificial ear drums proposed by Pohlman[4] can be fitted with good results. An artificial drum is worn during the day with little less discomfort than eye glasses. (fig 1b.)

Otitis Media with Effusion.—Otitis media with effusion has been considered to be due to obstruction of the eustachian tube. Recent work by Robison[5] indicates that it may be due to obstruction of the lymphatic vessels draining the middle ear, resulting in a collection within the middle ear of sterile, amber fluid which is high in albumin. Characteristically, the hearing is improved immediately after inflation of the eustachian tube.

There are nine known causes of this condition: (1) chronically infected adenoids; (2) hypertrophy of adenoid tissue within the mouth of the eustachian

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tube; (3) acute and chronic sinusitis; (4) acute head cold; (5) aero-otitis media from too rapid descent in an airplane; (6) acute virus infections, particularly influenza; (7) carcinoma of the nasopharynx; (8) malocclusion of the temperomandibular joint, and (9) nasal allergy.

Therapy consists of correction of the underlying cause, plus evacuation of the fluid by myringotomy followed by inflation of the eustachian tubes (fig. 1c).

Acute Suppurative Otitis Media.—Therapy of acute suppurative otitis media is well understood and will not be discussed.

Chronic Adhesive Deafness.—Chronic adhesive deafness may result from scar tissue binding down the ear drum and ossicles. Therapy consists of a fenestration operation. The incus and head of the malleus are removed. If under high magnification with the fenestration microscope the stapes is observed to be mobile, the operation is terminated and a good hearing result may be expected. If examination shows the stapes is fixed, the fenestration operation may be completed with the anticipation of obtaining hearing gains comparable to those for the correction of otosclerosis (fig. 1d).

Otosclerosis or Stapes Fixation Deafness.—The most common cause of deafness in early and middle adult life, otosclerosis or stapes fixation deafness

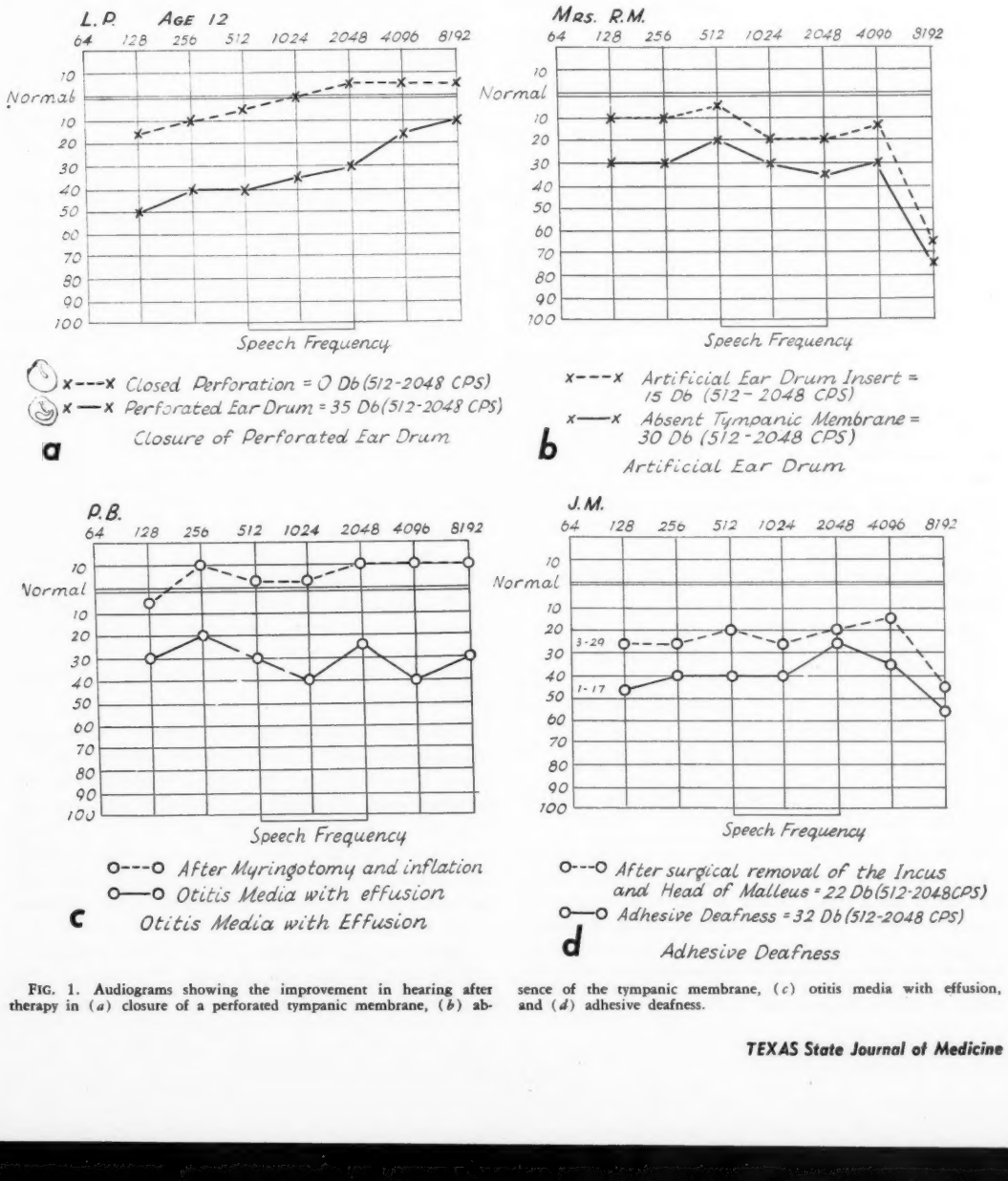
L.P. AGE 12
64 128 256 512 1024 2048 4096 8192
Normal
Speech Frequency
x---x Closed Perforation = 0 Db (512-2048 CPS)
x—x Perforated Ear Drum = 35 Db (512-2048 CPS)
a
Closure of Perforated Ear Drum
MRS. R.M.
Speech Frequency
x---x Artificial Ear Drum Insert = 15 Db (512-2048 CPS)
x—x Absent Tympanic Membrane = 30 Db (512-2048 CPS)
b
Artificial Ear Drum
P.B.
Speech Frequency
o---o After Myringotomy and inflation
o—o Otitis Media with effusion
c
Otitis Media with Effusion
J.M.
3-29
1-17
Speech Frequency
o---o After surgical removal of the Incus and Head of Malleus = 22 Db (512-2048 CPS)
o—o Adhesive Deafness = 32 Db (512-2048 CPS)
d
Adhesive Deafness

FIG. 1. Audiograms showing the improvement in hearing after therapy in (*a*) closure of a perforated tympanic membrane, (*b*) absence of the tympanic membrane, (*c*) otitis media with effusion, and (*d*) adhesive deafness.

affects 1 person in 100. Practical hearing can be restored in a varying percentage of cases, depending upon the status of the auditory nerve. In our practice we grade the suitability of candidates for fenestration as "A," "B," or "C." according to bone conduction tests with the audiometer and tuning forks and according to speech discrimination tests:

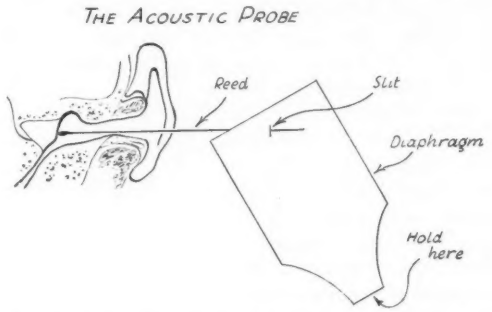

FIG. 2. A diagram showing the testing of the mobility of the stapes with an acoustic probe. Under direct vision the vicinity of the stapes is touched with the tip of the reed of the acoustic probe. If a spot which will show a sufficient gain in hearing on the speech audiometer is found, an artificial ear drum is indicated.

Class A.—No nerve degeneration in speech frequencies (512-2048 cycles per second).

Class B.—Slight nerve degeneration in one of the speech frequencies (512-1024 or 2048 cycles per second).

Class C.—Nerve degeneration in two or all of the speech frequencies.

A study of the results obtained in 102 of our patients who had fenestration operations and whose progress has been followed for from one to three years shows that the operation is highly successful in restoring serviceable hearing in cases in which there is no nerve degeneration (table 1). It is also worth while in cases in which there is a slight amount of nerve degeneration.

From these statistics it would appear that although careful surgical technique is important to good hearing results, careful selection of patients for the operation is likewise very important. However, one factor besides the hearing result must be considered in a candidate for fenestration. Many patients with otosclerosis eventually develop severe secondary nerve degeneration with hearing losses of from 80 to 90 decibels or even more. The hearing of these unfortunate persons cannot be raised to serviceable levels with hearing aids. Degeneration of the nerve occurs eight times less frequently in an ear upon which a fenestration operation has been performed. Thus, even when a fenestration fails to achieve socially adequate hearing, the patient may still be benefited by conservation of residual hearing.

REVERSIBLE NERVE DEAFNESS

It should be noted that therapy of all of the following conditions depends upon the patient getting medical advice in time. To have patients afflicted with nerve deafness fitted with hearing aids without previous examination by the physician or to send every such patient to the hearing aid dealer without considering the possible causative factors of deafness may lead, in some cases, to injurious consequences. These will be noted in the following section, as individual diseases are discussed.

Congenital and Acquired Syphilis.—Patients with progressive nerve deafness should have serologic tests and should be examined for evidence of congenital or acquired syphilis. If syphilis is present, it must be treated vigorously before irreparable damage to the spiral ganglion nerve cells results in permanent deafness.

Nerve Deafness from Acoustic Trauma.—Nerve deafness resulting from acoustic trauma is an increasingly frequent problem because of the many sources of high intensity sound in present-day society. Some persons are much more prone to nerve damage from loud noise. Characteristically they give a history of loud tinnitus and temporary deafness after exposure. Hearing is usually regained within a short time after removal from the noise, but if the condition is not recognized and the patient protected from future exposure, irreparable damage to the hearing eventually results. It is possible for a hearing aid to damage the auditory nerve of these patients; if an aid is necessary, an instrument with a low maximum power output and automatic volume control should be chosen to protect the patient from sudden loud noise.

Acoustic Nerve Tumors.—Tumor of the acoustic nerve should be considered in every patient who has

TABLE 1.—*Results of 102 Consecutive Fenestration Operations.*

	Case A		Case B		Case C		Total	
	No.	%	No.	%	No.	%	No.	%
Total fenestrations	66		32		4		102	
Hearing gain								
10-45 db.	65	(98)	32	(100)	4	(100)	101	(99)
No gain	1	(2)					1	(1)
Final hearing level								
Practical hearing (12-30 db.)	54	(82)	9	(28)			63	(64)
Partial rehabilitation (31-40 db.)	8	(12)	18	(56)	3	(75)	29	(27)
Socially inadequate	4	(6)	5	(16)	1	(25)	10	(9)
Lost hearing gain (Closure)	5	(7.5)	1	(3)			6	(6)

a unilateral progressive nerve deafness. Caloric tests should be done and the patient should be examined for involvement of the fifth, sixth, and seventh cranial nerves and for cerebellar ataxia. Therapy in these cases is neurosurgical but recognition of the cause of deafness is the crucial problem. It must be kept in mind that these tumors are occasionally bilateral or that hearing in the opposite ear may have been lost from other preexisting causes.

Serous or Circumscribed Labyrinthitis.—Serous and circumscribed labyrinthitis are secondary to otitis media. Each condition should be treated intensively with antibiotic drugs. If treatment is instituted early enough before a diffuse suppurative labyrinthitis occurs, complete recovery may ensue.

Toxic Nerve Deafness.—Toxic nerve deafness may result from (1) infection (such as scarlet fever, rheumatic fever, mumps, influenza, measles, and pneumonia), (2) idiosyncrasies to drugs (especially

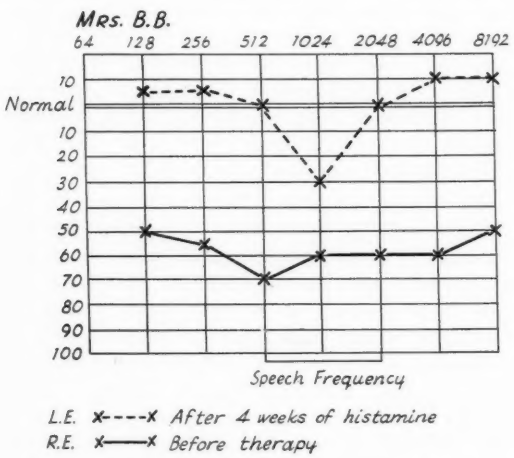

FIG. 3. An audiogram showing the improvement in hearing after histamine therapy in a case of vasospasm of the cochlear artery.

quinine, streptomycin, salicylates, sulfonamides, and lead), and (3) focal infections. All of these causes require early recognition and removal if the patient's hearing is to be preserved.

Ménière's Disease (Labyrinthine Hydrops).—Conservative therapy of Ménière's disease consists of allergy tests; a low salt diet; and the use of nicotinic acid, histamine, potassium nitrate, phenobarbital, and hyoscine. Acute attacks may be aborted with adrenalin and histamine or antihistaminic drugs. Cortisone may be an important adjunct to the armamentarium against this disease.

Vasospasm of the Cochlear Artery.—Vasospasm of the cochlear artery, a fairly frequent cause of nerve deafness, often responds dramatically to histamine and to vasodilators (fig 3).

Psychogenic Deafness.—Psychogenic deafness is relatively common and is most frequently seen as a hysterical exaggeration or overlay on an already existing organic deafness. Hearing aids for these patients are unnecessary and tend to fix the hysteria. The disease is characterized by (1) wide fluctuation of hearing loss, (2) disparity of pure tone and speech threshold, and (3) frequent temporary recovery from suggestion therapy.

The Doerfler-Stewart[1] test is the most reliable laboratory test for differentiating this condition from mere malingering. The best and most conclusive test is narcosynthesis.[3] The patient's hearing is tested before and during light Pentothal anesthesia or hypnosis. Under narcosis the hearing is restored to the level of organic deafness. The correct therapy, naturally, is psychotherapy.

NONREVERSIBLE DEAFNESS

Deafness not amenable to restoration of socially adequate hearing by medical means includes conduction and reversible nerve deafness which is unsuccessfully treated and also the various types of nonreversible deafness. Among the causes of nonreversible deafness are (1) cerebrospinal meningitis, (2) basal skull fracture passing through the labyrinth or auditory nerve, (3) vascular accidents in the labyrinth, (4) senile nerve deafness, (5) labyrinthine otosclerosis, (6) familial nerve deafness, and (7) congenital nerve deafness (idiopathy; virus infection, especially rubella in the first trimester of pregnancy; quinine poisoning from medication taken by the mother; and erythroblastosis fetalis).

The armamentarium in the management of this group of deafnesses has five major considerations. These are:

Conservation of Residual Hearing.—If the residual hearing cannot be conserved medically, a useful hearing aid may gradually become worthless. Advice regarding avoidance of possible sources of further damage to hearing, for example, loud noise, drugs, allergies, and infections, is always in order.

Selection of Hearing Aid.—The purpose of a hearing aid is to make use of residual hearing; in some cases the purchase of an aid is worthless or contraindicated. In difficult cases many hearing aids may have to be tested to find the one most satisfactory. Factors and tests used in selecting hearing aids are: (1) maximum range of audibility, (2) maximum power output, (3) maximum hearing gain, (4) maximum discrimination power for similar sounds (different hearing aids may vary greatly in this respect on a given patient), and (5) discrimination in a noisy background.

Auditory Training.—Sounds are heard differently through a hearing aid and patients must be taught to interpret them; this is done best by auditory training. By this method the hearing of some patients who otherwise would be unable to wear a hearing aid successfully may be salvaged. All users of hearing aids do better and learn more quickly if given auditory training.

Lip Reading.—The objective of lip reading is to fill in with the eyes the sounds not heard with the ears or with hearing aids. Many words, however, look alike, for example, bat, mat, pat, and the patient must learn to guess which word is being used from hints in the content of the sentence.

Speech Training.—Speech training is used to develop and conserve speech and voice quality. The congenitally deaf child does not spontaneously develop speech, voice quality, or even language. Early recognition of deafness and proper training in speech and lip reading enable the more intelligent children finally to lead relatively normal lives associated with hearing children. A few in later years have received university degrees.

Severely deafened adults, particularly with loss of high tones, will undergo a gradual loss of voice quality through omission of sounds, especially consonants, no longer heard. Early institution of speech conservation training will prevent this loss of voice quality.

CONCLUSIONS

Deafness is very common and very disabling. There are many possible causes; often they are curable. Physicians need to accept the responsibility for the diagnosis and treatment of deafness which can be cured and to direct the management of deafness which is not reversible. Complete hearing evaluation and therapy should be made available to all deaf patients. The establishment of hearing clinics, such as the one at the University of Texas in Galveston, and of hearing centers should be encouraged.

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509 Hermann Professional Building.

ABSTRACT OF DISCUSSION

DR. L. E. ADIN, Dallas: Drs. Wright and Guilford are to be congratulated upon the results they have obtained in cases of stapes fixation due to otosclerosis. Their results compare favorably with those reported elsewhere.

The management of the deaf patient belongs in the hands of the medical profession. In addition to following the outline of measures for diagnosis and therapy of the deaf patient recommended by Drs. Wright and Guilford, the otolaryngologist must realize that hearing is only a part of the whole picture. Although the busy otolaryngologist cannot engage in speech training or the many other facets of the problem, he must ally himself with those who have the time and training to supplement his medical diagnostic ability and skill. He must take his proper place in the relatively new science of audiology along with the audiologist, educator, child psychologist, speech conservationist, social service worker, school nurse, and acoustic engineer. Should he fail in his responsibilities, the initiative and opportunity may be transferred to the hands of those with more interest and more concern for the problems of the deaf. Even now, I suspect that the hearing aid salesman is consulted initially by as many patients who are hard of hearing as is the otolaryngologist.

In the case of children, the physician is consulted because of lack of response to sound or lack of proper speech development. He must be able to distinguish between the deaf child and the aphasic or autistic child. If irreversible hearing impairment is diagnosed, treatment and special instruction should begin at once.

It is with these children with irreversible deafness that the otolaryngologist should be most concerned. They constitute a natural resource that cannot be wasted in these troubled times. Today with proper training and education a congenitally deaf child through speech and lip reading may approach the privileges and responsibilities of normal adult life. In addition to using to the fullest extent the knowledge that science makes available, the physician must understand the social, educational, vocational, and psychologic implications of hearing and speech impairments. If the deaf child is to be assured of his basic right to communication, education, work, and participation in the life of his community, his deafness must be recognized early, and necessary medical care and an educational program especially suited to his needs must be made available.

With regard to the adult, the mere diagnosis of hearing impairment and the suggestion that a hearing aid might be of benefit do not discharge the otolaryngologist from his responsibility. Because so many physicians neglect the audiologic, social, and psychologic factors of hearing loss and fail to train the patient to use his hearing aid, many aids have been relegated to bureau drawers and attics. The adult faced with an irreversible loss in hearing is at a disadvantage in social intercourse, perhaps even to the extent of losing his means of livelihood. He may be in actual danger from inability to hear the warning sounds of his environment. And if aged, he may be doomed to a lonely and frustrating existence, cast aside socially by family and friends.

Only after otolaryngologists have done all that Drs. Wright and Guilford have mentioned, then have cooperated with the agencies for the education and benefit of the hard of hearing, will they have discharged their full duty.

C. O. HAUG, M. A., Houston: From an audiologic standpoint, several points which Drs. Wright and Guilford brought out probably need elaboration. First, in the treatment of nonreversible deafness, not everyone is a suitable candidate for a hearing aid. The fact that is not generally appreciated, even in professional circles, is that the degree of loss in acuity is not the most important criterion in assessing the benefit possible with a hearing aid. More important considerations are the amount of loss in ability to

discriminate sounds and the tolerance for loud sounds, that is, the range of usable hearing between the threshold of audibility and the threshold for pain. For example, a person with a severe air conduction loss of 60 decibels in the speech range but with good hearing in the high frequencies will get excellent results from a hearing aid; he needs only amplification to understand as well as the normal person. On the other hand, a person with only a slight loss of acuity in the speech range but a severe drop in the high tones, because of the disturbance in his ability to discriminate speech sounds, will get poor results from a hearing aid, no benefit whatsoever, or even acoustic trauma, as mentioned by Drs. Wright and Guilford. In addition, a hearing aid if contraindicated or poorly fitted may cause overlaid psychologic problems as disturbing as the original deafness.

Thus, to serve best the patient in need of acoustic prosthesis and to prevent the abuses and exploitation which often exist in the commercial field, the complete hearing diagnosis and evaluation of hearing aids at the professional level, services which are most effective in hearing clinics in private medical practice or in clinics associated with medical institutions, are needed.

As pointed out by Drs. Wright and Guilford, the medical profession has a further responsibility for the management of the training of those patients with nonreversible deafness which cannot be corrected with a hearing aid or who by reason of their poor speech discrimination can expect meager results with a hearing aid. If they are to take their place as well adjusted persons in the hearing world, they must be given auditory training. Auditory training makes a person a more critical and attentive listener. Through special earphone amplification systems, every bit of residual hearing is utilized, and visual, tactile, and kinesthetic cues are taught for combined sensory perception. Through progressively more difficult exercises such training sharpens the patient's ability to distinguish and discriminate one sound from another, ranging from gross noises to speech sounds. Finally, through the artificial introduction of controlled noise background to make the listening situation more difficult, the power to focus attention on speech while disregarding the unimportant ambient sounds and noises is developed.

Auditory training and speech training for the deaf child is too large a problem to discuss here, but suffice it to say, that there need be no deaf mutes, dependent only on signs for communication. Every deaf child, unless severely retarded mentally, can be given speech and nearly normal control of his voice, if training is initiated early enough.

CASE REPORTS

TRAUMATIC RUPTURE OF DIAPHRAGM WITH TRANSTHORACIC REPAIR

JOHN M. WHITE, JR., M.D., and GEORGE SLADCZYK, M.D., F.A.C.S., Port Arthur, Texas

IN describing this case we have used the term "traumatic rupture of the diaphragm with evisceration of the abdominal organs" instead of diaphragmatic hernia because we believe that the condition is not a true hernia, as no hernial sac is present. Harrington, in his excellent and complete discussion of diaphragmatic hernia, preferred the term "false hernia" or "evisceration" to describe the condition existing in traumatic types of diaphragmatic hernia. In his series of 430 cases of all types of diaphragmatic hernias, he reported an operative mortality of 4 per cent; in traumatic diaphragmatic rupture it was 8.6 per cent.

Traumatic rupture of the diaphragm is the second most common type of diaphragmatic defect, the most common being the esophageal hiatus hernia. Rupture can be caused by (1) indirect injury (tearing or bursting force due to greatly increased intra-abdominal pressure), (2) direct injury (such as knife or gunshot wounds), and (3) inflammatory necrosis (subdiaphragmatic abscess or necrosis from drainage tubes in empyema). The defect is most commonly located in the dome or posterior half of the left diaphragm.

The case presented represents the result of an indirect injury, with the rupture in the dome of the left part of the diaphragm.

From the Surgical Section, St. Mary's Hospital.

CASE REPORT

An 11 year old white boy received multiple injuries January 5, 1951, when he was struck by an automobile, one wheel of which passed over his abdomen. Besides an injury of the diaphragm, he suffered fractures of the pelvis, left ankle, and seventh and eighth ribs on the left side, and multiple and extensive abrasions and lacerations about the face and back.

The patient was admitted in shock with dyspnea and moderate cyanosis. The respiration rate was 48 and the pulse rate 150 per minute. Examination revealed an obviously fractured and displaced eighth rib on the left side, an absence of breath sounds in the left lower portion of the chest, and a tympanitic percussion note over the entire left part of the chest with a marked shift of the heart to the right of the sternum.

Aspiration of the left side of the chest was done immediately, as a tension pneumothorax was believed present; no free air was found on aspiration. It was realized that the large air bubble noted in the roentgenograms of the left side of the chest was probably due to a ruptured diaphragm and

a displacement of the stomach into the left side of the chest (fig. 1a). Supportive treatment including oxygen, intravenous fluids, and blood, and continuous gastric suction was started in an effort to remove the gas from the dilated stomach and thus relieve the pressure collapsing the left lung. The next day the diagnosis of a displacement of the stomach into the left side of the chest was proved by injection of a small amount of barium through the Levin tube previously placed in the stomach (fig. 1b).

The patient's condition remained critical with a rapid pulse, pronounced dyspnea, and respiration rate from 50 to 60 per minute until the third day, when he rather suddenly became improved with less dyspnea, less mediastinal shift, and a decrease in the pulse rate to 110 and in respiration rate to 34. We believe this improvement resulted not only from supportive treatment but also from the continuous gastric suction, as roentgenograms (fig. 1c and d) showed a decreased amount of gas in the displaced stomach, and possibly also from some physiologic adjustment which the body made to the cardiac displacement and the decreased amount of lung tissue available for respiration.

On the fourth postadmission day, January 9, the patient's general condition had improved sufficiently to repair the diaphragm through a transthoracic approach. Under ether anesthesia administered endotracheally with assisted (positive pressure) respiration technique, a posterolateral incision was made with the patient in the Sims position and the eighth rib was resected. On opening the chest the left lung was observed to be almost completely collapsed. The entire stomach, spleen, and omentum had been displaced into the left side of the chest cavity through a 14 cm. transverse tear in the dome of the diaphragm. These organs were replaced into the abdomen with some difficulty, and only after the phrenic nerve was crushed as it entered the diaphragm was it possible to ap-

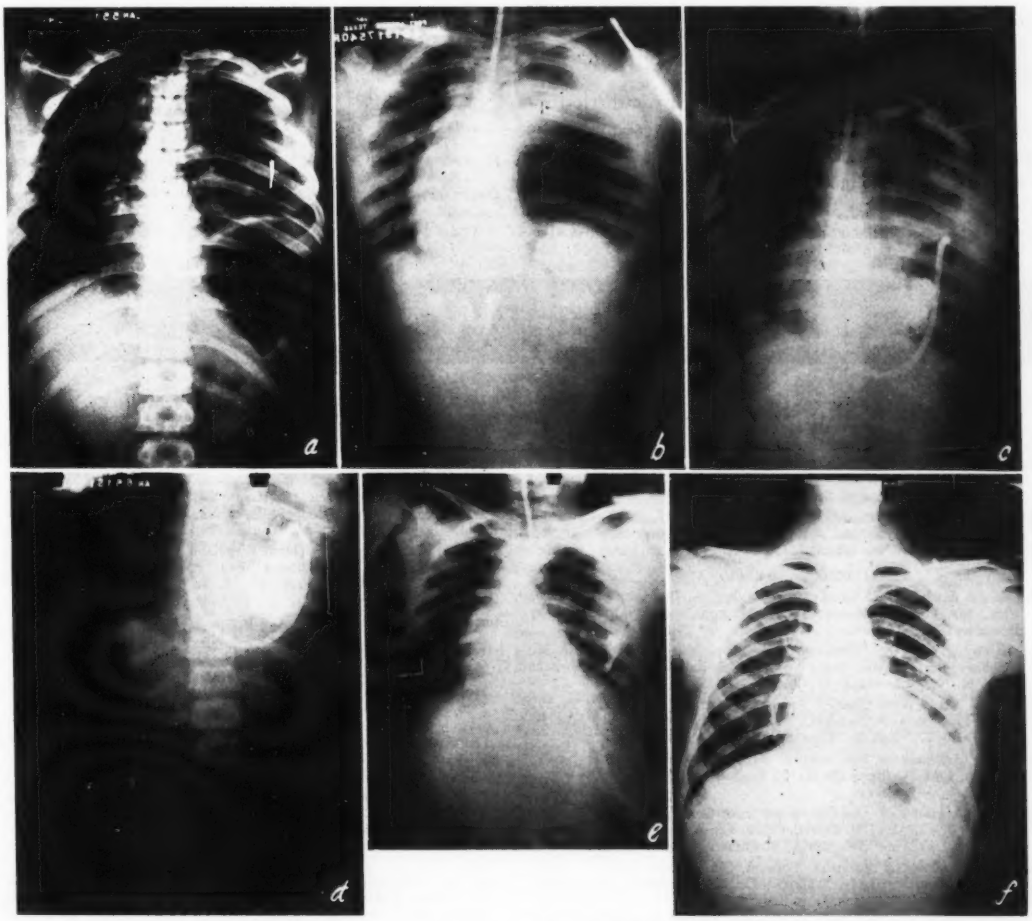

FIG. 1a. An anteroposterior roentgenogram taken on admission showing the marked mediastinal shift and the gas filled stomach in the left portion of the chest cavity.

b. A roentgenogram taken twelve hours later than *a* showing barium in the stomach which had been introduced through the Levin tube. Note the increase in the amount of gas and in the mediastinal shift.

c. A film taken approximately twelve hours later than *b* showing a decrease in the amount of gas in the stomach and a lessened mediastinal shift due to continuous gastric suction.

d. A preoperative roentgenogram showing a further decrease in the amount of gas in the stomach.

e. A roentgenogram taken immediately postoperatively showing the drainage tube in place and the reexpansion of the left lung.

f. A roentgenogram taken eighteen days postoperatively showing a slight pleural haze remaining in the left base with the left lung completely reexpanded.

proximate the torn edges of the diaphragm. The tear was repaired with an overlapping procedure, using interrupted 00 surgical cotton sutures. The wound was closed in layers using chromic 1 catgut on the pleura and the periosteal layer and interrupted cotton on the periosteal and muscle layers. The lung was reexpanded and a rubber tube inserted obliquely through a separate stab wound in the tenth interspace (fig. 1e); the end of the tube was placed under water and the tube removed in twenty-four hours.

The postoperative course was uneventful except for several granulation areas in the wound about the surgical cotton which developed twelve days postoperatively and which are slowly clearing after the removal of these buried sutures. A roentgenogram of the chest eighteen days postoperatively showed normal reexpansion of the left lung with only a slight pleural haze remaining in the extreme base (fig. 1f).

COMMENT

We believe this case illustrates three important facts:

1. Definitive operative treatment of traumatic rupture of the diaphragm is indicated as soon as the general condition of the patient allows. This early treatment avoids complications of intestinal obstruction or hemorrhage from incarcerated abdominal organs. It also makes the operation technically less difficult and dangerous because no adhesions have had time to form, and early replacement of the organs does not cause any radical increase in intraabdominal pressure, which often complicates late replacement.

2. Gastric suction helps relieve the respiratory and cardiac embarrassment and allows easier replacement of the stomach into the abdominal cavity at operation.

3. The transthoracic approach to these injuries is a relatively simple and efficient means of repair.

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3149 Procter Street.

NEWS

COMING MEETINGS AND CLINICS

Texas Medical Association, Dallas, May 4-7, 1952. Dr. Allen T. Stewart, Lubbock, Pres.; N. C. Forrester, 700 Guadalupe St., Austin, Acting Executive Secy.

American Medical Association, Los Angeles, Dec. 4-7, 1951. Dr. John W. Cline, San Francisco, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secy.

NATIONAL AND REGIONAL

American Academy of Allergy. Dr. Walter S. Burrage, Milwaukee, Pres.; Mr. James O. Kelley, 208 E. Wisconsin Ave., Milwaukee 2, Executive Secy.

American Academy of Dermatology and Syphilology. Dr. Donald M. Pillsbury, Philadelphia, Pres.; Dr. John E. Rauschkolb, 25 Prospect Ave., N. W., Cleveland 15, Secy.

American Academy of General Practice, Atlantic City, March 24-27, 1952. Dr. Jason P. Sanders, Shreveport, La., Pres.; Mr. Mac F. Cahal, 406 W. 34th St., Kansas City 2, Executive Secy.

American Academy of Neurological Surgery. Dr. William S. Keith, Toronto, Canada, Pres.; Dr. T. C. Erickson, 1300 University Ave., Madison 5, Wis., Secy.

American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 14-18, 1951. Dr. Derrick Vail, Chicago, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.

American Academy of Pediatrics, Toronto, Oct. 20-25, 1951. Dr. Paul W. Beaven, Rochester, N. Y., Pres.; Dr. C. G. Grulee, 636 Church St., Evanston, Ill., Secy.

American Association for Thoracic Surgery, Dallas, May 8-10, 1952. Dr. Frank B. Berry, New York, Pres.; Dr. Paul C. Samson, 2938 McClure St., Oakland 9, Calif., Secy.

American Association of Genito-Urinary Surgeons. Dr. Charles C. Higgins, Cleveland, Pres.; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago 3, Secy.

American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Hot Springs, Va., Sept. 6-8, 1951. Dr. James K. Quigley, Rochester, N. Y., Pres.; Dr. William F. Mengert, 2211 Oak Lawn Ave., Dallas, Secy.

American Cancer Society. Dr. Guy Aud, Louisville, Ky., Pres.; Mr. M. R. Runyon, 47 Beaver St., New York, Exec. Vice-Pres.

American College of Allergists. Dr. John H. Mitchell, Columbus, Ohio, Pres.; Dr. Fred W. Wittich, 423 La Salle Medical Building, Minneapolis 2, Secy.

American College of Chest Physicians, Los Angeles, Dec. 2-3, 1951. Dr. Chevalier L. Jackson, Philadelphia, Pres.; Mr. Murray Kornfeld, 500 N. Dearborn St., Chicago 10, Executive Secy.

American College of Physicians, Cleveland, April 21-25, 1952; regional meeting, New Orleans, Feb. 15-16, 1952. Dr. Maurice C. Pincoffs, Baltimore, Pres.; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secy.

American College of Radiology, Chicago, June 8, 1952. Dr. Robert R. Newell, San Francisco, Pres.; Mr. W. C. Stronach, 20 N. Wacker Drive, Chicago 6, Executive Secy.

American College of Surgeons, San Francisco, Nov. 5-9, 1951. Dr. Henry W. Cave, New York, Pres.; Dr. Michael L. Mason, 40 E. Erie St., Chicago 11, Secy.

American Congress of Physical Medicine, Denver, Sept. 3-8, 1951. Dr. Arthur L. Watkins, Boston, Pres.; Dr. Walter J. Zeiter, 2020 E. 93rd, Cleveland 6, Secy.

American Dermatological Association. Dr. Edward A. Oliver, Chicago, Pres.; Dr. L. A. Brunsting, 102 2nd Ave., S. W., Rochester, Minn., Secy.

American Gastro-Enterological Association. Dr. T. Grier Miller, Philadelphia, Pres.; Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secy.

American Gynecological Society, Hot Springs, Va., May 12-14, 1952. Dr. Walter T. Dannreuther, New York, Pres.; Dr. John I. Brewer, 104 S. Michigan Ave., Chicago, Secy.

American Hospital Association. Dr. Anthony J. J. Rourke, San Francisco, Pres.; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secy.

American Laryngological, Rhinological, and Otological Society, Toronto, May 22-24, 1952. Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Pres. and Secy.

American Neurological Association. Dr. S. Bernard Wortis, N. Y., Pres.; Dr. H. Houston Merritt, 710 W. 168th St., New York 32, Secy.

American Ophthalmological Society, Hot Springs, Va., June 5-7, 1952. Dr. Lawrence T. Post, St. Louis, Pres.; Dr. M. C. Wheeler, 30 W. 59th St., New York 19, Secy.

American Orthopedic Association, London, June 30-July 4, 1952. Dr. Fremont Chandler, Chicago, Pres.; Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secy.

American Pediatric Society. Dr. Hugh McCulloch, Chicago, Pres.; Dr. Sims McGuinness, 1740 Bainbridge St., Philadelphia 46, Secy.

American Proctologic Society. Dr. Hoyt R. Allen, Little Rock, Pres.; Dr. W. Wendell Green, 1838 Parkwood Ave., Toledo 2, Secy.

American Psychiatric Association, Atlantic City, May 12-16, 1952. Dr. Leo H. Bartemeier, Detroit, Pres.; Dr. R. Finley Gayle, 501 E. Franklin St., Richmond, Va., Secy.

American Public Health Association, San Francisco, Oct. 29-Nov. 2, 1951. Dr. W. P. Shepard, San Francisco, Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Secy.

American Society of Anesthesiologists, Washington, D. C., Nov. 5-8, 1951. Dr. Urban H. Eversole, Boston, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph St., Chicago, Secy.

American Society of Clinical Pathologists, Chicago, Oct. 13-20, 1951. Dr. F. William Sundermann, Atlanta, Ga., Pres.; Dr. Clyde G. Culbertson, Indiana University School of Medicine, Indianapolis, Secy.

American Surgical Association, West Sulphur Springs, April 16-18, 1952. Dr. Daniel C. Elkin, Atlanta, Pres.; Dr. Nathan Womack, University of Iowa, Iowa City, Secy.

American Urological Association, Atlantic City, June 23-26, 1952. Dr. Elmer Hess, Erie, Pa., Pres.; Dr. C. H. deT. Shivers, 121 S. Illinois Ave., Atlantic City, N. J., Secy.

Association of American Physicians and Surgeons, Indianapolis, Oct. 4-6, 1951. Dr. Lawrence Shinabery, Fort Wayne, Ind., Pres.; Mr. Harry E. Northam, 360 N. Michigan Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Chicago, Sept. 10-13, 1951. Dr. H. W. Meyerding, Rochester, Minn., Pres.; Dr. Arnold S. Jackson, 1516 Lake Shore Drive, Chicago, Secy.

National Tuberculosis Association. Dr. Alton S. Pope, Boston, Pres.; Dr. James E. Perkins, 1790 Broadway, New York 19, Managing Director.

Radiological Society of North America, Chicago, Dec. 3-7, 1951. Dr. John S. Bouslog, Denver, Pres.; Dr. D. S. Childs, Medical Arts Bldg., Syracuse 2, N. Y., Secy.

Southern Medical Association, Dallas, Nov. 5-8, 1951. Dr. Curtice Rosser, Dallas, Pres.; Mr. C. P. Loranz, 1020 Empire Bldg., Birmingham, Ala., Secy.

Southern Psychiatric Association. Dr. R. Burke Suitt, Durham, N. C., Pres.; Dr. Newdigate M. Owensby, Medical Arts Bldg., Atlanta, Ga., Secy.

Southern Surgical Association, Hot Springs, Va., Dec. 4-6, 1951. Dr. Frank C. Wilson, Birmingham, Ala., Pres.; Dr. John C. Burch, 2112 West End Ave., Nashville, Tenn., Secy.

Southwest Allergy Forum, Dallas, March, 1952. Dr. C. B. Shuey, Dallas, Pres.; Dr. James Holman, Medical Arts Bldg., Dallas, Secy.

Southwest Regional Cancer Conference, Fort Worth, Sept. 13, 1951. Secy., 209 Medical Arts Bldg., Fort Worth.

Southwestern Medical Association, El Paso, Oct. 18-20, 1951. Dr. L. W. Breck, El Paso, Pres.; Dr. W. W. Schuessler, 1415 First National Bank Bldg., El Paso, Secy.

Southwestern Surgical Congress, St. Louis, Sept. 24-26, 1951. Dr. Leo J. Starry, Oklahoma City, Pres.; Dr. C. R. Rountree, 1227 Classen, Oklahoma City 3, Secy.

Tri-State Medical Assembly, Marshall, Sept. 26-27, 1951. Dr. W. S. Terry, Jefferson, Pres.; Dr. James Harris, Marshall, Secy.

United States-Mexico Border Public Health Association. Dr. Luis Arriaga Velez, Chihuahua, Mexico, Pres.; Dr. M. F. Haralson, 314 U. S. Court House, El Paso, Secy.

STATE

Texas Academy of General Practice, Houston, Sept. 10-11, 1951. Dr. Andrew S. Tomb, Victoria, Pres.; Dr. B. H. Bayer, 104 E. Twentieth St., Houston, Secy.

Texas Academy of Internal Medicine, Galveston, Dec. 8-9, 1951. Dr. W. L. Marr, Galveston, Pres.; Dr. John S. Chapman, 3810 Swiss Ave., Dallas, Secy. Meetings restricted to members.

Texas Air-Medics Association. Dr. W. M. Pratt, Houston, Pres.; Dr. J. S. Minnett, 2512 Welborn, Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Austin, Feb. 8-9, 1952. Dr. S. Foster Moore, San Antonio, Pres.; Dr. Carey Hiett, 603 College Ave., Fort Worth, Secy.

Texas Chapter, American College of Chest Physicians, Dallas, May 5, 1952. Dr. J. E. Dailey, Houston, Pres.; Dr. Howard Smith, 3215 Exposition Blvd., Austin, Secy.

Texas Club of Internists. Dr. Ghent Graves, Houston, Pres.; Dr. Hatch W. Cummings, Jr., 203 Hermann Professional Bldg., Houston, Secy.

Texas Dermatological Society. Dr. W. H. Connor, Houston, Pres.; Dr. C. H. McCuistion, Capital National Bank Bldg., Austin, Secy.

Texas Diabetes Association, Dallas, May 4, 1952. Dr. D. W. Carter, Jr., Dallas, Pres.; Dr. Ivan Mayfield, 1312 Main, Lubbock, Secy.

Texas Division, American Cancer Society, Fall, 1951. Mr. Frank C. Smith, Houston, Pres.; Mr. J. Louis Neff, 2307 Helena St., Houston 6, Executive Director.

Texas Heart Association, Dallas, May 5, 1952. Dr. Paul V. Ledbetter, Houston, Pres.; Miss Roberta Miller, 411 Reserve Loan Life Bldg., Dallas, Executive Secy.

Texas Hospital Association, Houston, May 20-22, 1952. Mrs. Ruby B. Gilbert, Temple, Pres.; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secy.

Texas Neuropsychiatric Association. Dr. David Wade, Austin, Pres.; Dr. James Blair, 1708 Nix Professional Bldg., San Antonio, Secy.

Texas Orthopedic Association, Dallas, May 5, 1952. Dr. G. W. N. Eggers, Galveston, Pres.; Dr. Margaret Watkins, 3629 Fairmount St., Dallas, Secy.

Texas Pediatric Society, Houston, Oct. 12-13, 1951. Dr. Thomas D. McCrummen, Austin, Pres.; Dr. M. C. Carlisle, 1410 Austin Ave., Waco, Secy.

Texas Public Health Association, Galveston, Feb. 17-20, 1952. Mr. Barnie A. Young, Austin, Pres.; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Executive Secy.

Texas Radiological Society, Houston, Jan. 18-19, 1952. Dr. Curtis H. Burge, Houston, Pres.; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secy.

Texas Railway and Traumatic Surgical Association. Dr. A. W. Hartman, San Antonio, Pres.; Dr. W. F. Parsons, First National Bank Bldg., Fort Worth, Secy.

Texas Rheumatism Association, Galveston, December, 1951. Dr. G. W. N. Eggers, Galveston, Pres.; Dr. Robert H. Mitchell, 210 Medical Arts Bldg., Fort Worth, Secy.

Texas Society for Mental Health, Fort Worth, March 6-7, 1952. Dr. Warren T. Brown, Houston, Pres.; Mrs. Elizabeth F. Gardner, 2504 Jarratt Ave., Austin 21, Executive Secy.

Texas Society of Anesthesiologists, Dallas, May, 1952. Dr. L. F. Schuhmacher, Jr., Houston, Pres.; Dr. Werner Hoeflich, 2301 Reba, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Dallas, May 5, 1952. Dr. Carl G. Giesecke, San Antonio, Pres.; Dr. John S. Bagwell, Medical Arts Bldg., Dallas, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 7-8, 1951. Dr. Edward D. Dumas, San Antonio, Pres.; Dr. Lyle Hooker, 627 Esperson Bldg., Houston, Secy.

Texas Society of Pathologists, Dallas, Jan. 27, 1952. Dr. Stuart A. Wallace, Houston, Pres.; Dr. A. O. Severance, 205 Camden, San Antonio, Secy.

Texas Surgical Society, Fort Worth, Oct. 1-2, 1951. Dr. Edward White, Dallas, Pres.; Dr. Truman G. Blocker, 927 Strand, Galveston, Secy.

Texas Tuberculosis Association, San Antonio, April 18-19, 1952. Dr. David McCullough, Kerrville, Pres.; Miss Pansy Nichols, 208 E. Ninth, Austin, Executive Secy.

Texas Urological Society, Dallas, 1952. Dr. William H. Heck, San Antonio, Pres.; Dr. J. D. Mitchell, 1414 Medical Arts Bldg., Dallas, Secy.

DISTRICT

Second District Society. Dr. A. H. Daniell, Brownfield, Pres.; Dr. C. B. Knox, Jr., Seagraves, Secy.

Third District Society, Plainview, April 8-9, 1952. Dr. Pauline Miller, Lubbock, Pres.; Dr. James T. Hall, 1302 Avenue Q, Lubbock, Secy.

Fourth District Society, Brady, November, 1951. Dr. S. Braswell Locker, Brownwood, Pres.; Dr. B. A. Hallum, Brady, Secy.

Fifth and Sixth Districts Society. Dr. E. King Gill, Corpus Christi, Pres.; Dr. Foy Moody, 1611 Fifth St., Corpus Christi, Secy.

Seventh District Society. Dr. George W. Tipton, Austin, Pres.; Dr. D. B. Faubion, 1403 C Guadalupe, Austin, Secy.

Eighth District Medical Society. Dr. Leonard Johnson, El Campo, Pres.; Dr. Robert Casey, Texas City, Secy.

Ninth District Society. Dr. F. Ray Black, Huntsville, Pres.; Dr. Lyman C. Blair, 1212 Rothwell, Houston, Secy.

Tenth District Medical Society, Liberty, Sept. 20, 1951. Dr. T. A. Fears, Beaumont, Pres.; Dr. J. M. White, Jr., 3149 Proctor, Port Arthur, Secy.

Eleventh District Society, Athens. Dr. Griff T. Ross, Mount Enterprise, Pres.

Twelfth District Society, Waco, Jan. 8, 1952. Dr. S. C. Richardson, Bryan, Pres.; Dr. J. C. Terrell, Stephenville, Secy.

Thirteenth District Society. Dr. R. L. Daily, Wichita Falls, Pres.; Dr. S. W. Wilson, Medical Arts Bldg., Fort Worth, Secy.

Fourteenth District Society, Greenville, June, 1952. Dr. N. L. Barker, Paris, Pres.; Dr. L. W. Johnston, 502 W. College St., Terrell, Secy.

Fifteenth District Society, Marshall, Sept. 26, 1951. Dr. R. G. Granbery, Marshall, Pres.; Dr. H. O. Padgett, Marshall, Secy.

CLINICS

Dallas Southern Clinical Society, Dallas, March 17-20, 1952. Miss Betty Elmer, Medical Arts Bldg., Dallas 1, Executive Secy.

International Post-Graduate Medical Assembly of Southwest Texas, San Antonio, Jan. 22-24, 1952. Dr. John J. Hinchey, P. O. Box 2445, San Antonio, Secy.

New Orleans Graduate Medical Assembly. Dr. Woodard D. Beacham, Room 105, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Sept. 19, 1951. Dr. W. L. Powers, Hamilton Bldg., Wichita Falls, Chairman.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 29-Nov. 1, 1951. Mrs. Muriel R. Waller, 512 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Post Graduate Medical Assembly of South Texas, Houston, 1952. Dr. C. A. Dwyer, Secy., 229 Medical Arts Bldg., Houston.

UNIVERSITY OF TEXAS MEDICAL BRANCH

Graduate study programs for the doctor of philosophy degree are being instituted at the University of Texas Medical Branch in the fields of anatomy, biochemistry and nutrition, microbiology, pharmacology, and physiology. The programs are to be correlated with opportunities for study at the Main Branch of the University of Texas, Austin, and in coordination with Southwestern Medical School of the University of Texas, Dallas, the M. D. Anderson Hospital for Cancer Research, Houston, and the University of Texas School of Dentistry, Houston.

Publication of a reprint of Ashbel Smith's account of the yellow fever epidemic in Galveston in 1839 has been scheduled by the University of Texas Press. The author was founder of the University of Texas, first chairman of the board of regents, and previously served as dean of Texas Medical College, Galveston.

Two grants of $5,000 for the support of cancer research have been made by the Damon Runyon Memorial Fund for Cancer Research, Inc., to the Medical Branch. Funds involved were contributed in memory of the late Sam Maceo of Galveston. One grant was made to the Pharmacology Laboratory under the direction of George A. Emerson, Ph. D., to study "The Effect of Substituted Purine and Tyrimidine Analogues on the Iron, Zinc, Copper, and Cobalt Content of Precancerous and Cancerous Tissues." The other grant was made to the Tissue Culture Laboratory under the direction of Charles M. Pomerat, Ph. D., to study "Nuclear Cytology of Human Neoplastic Tissue Cultivated in Vitro."

POSTGRADUATE COURSE IN CARDIOLOGY

A postgraduate course in cardiology arranged by the American College of Physicians under the direction of Dr. George R. Herrmann, Galveston, will be offered at the University of Texas Medical Branch in Galveston, December 10-15.

The course is open to any physician. The registration fee is $30 for members of the American College of Physicians and $60 for nonmembers. At least twenty-five registrants are necessary for the course to be given.

Out-of-state instructors will include the following:

DR. ARLIE R. BARNES, Head of a Section in the Division of Medicine, Mayo Clinic, Rochester, Minn.

DR. ENRIQUE CABRERA, Professor of Medicine, University of Mexico School of Medicine, Mexico, D. F.

DR. JORGE CEBALLOS, Assistant Radiologist, Instituto Nacional de Cardiologia de Mexico, Mexico, D. F.

DR. IGNACIO CHAVEZ, Director, Instituto Nacional de Medicina, Mexico, D. F.

DR. NARNO DORBECKER, Professor of Radiology, University of Mexico School of Medicine, Mexico, D. F.

DR. RODOLFO LIMON, Head, Department of Hemodynamics, Instituto Nacional de Cardiologia de Mexico, Mexico, D. F.

DR. THOMAS M. MCMILLAN, Professor of Clinical Medicine, University of Pennsylvania School of Medicine, Philadelphia.

DR. SERGIO NOVELO, Professor of Medicine, University of Mexico School of Medicine, Mexico, D. F.

DR. PAUL D. WHITE, Consultant, Massachusetts General Hospital, Boston.

Texas physicians who will be instructors include Drs. Paul Brindley, E. Ivan Bruce, Arild E. Hansen, Titus H. Harris, Albert W. Harrison, Milton R. Hejtmancik, George R. Herrmann, Clarence S. Livingood, J. C. Rude, Edward H. Schwab, and Charles T. Stone, Galveston; David W. Carter, Jr., Dallas; Richard P. Johnson, Fort Sam Houston; Mavis P. Kelsey and Edgar M. McPeak, Houston; and Walter B. Whiting, Wichita Falls.

The course is planned for physicians interested in the pathophysiology and clinical aspects of heart diseases; modern concepts of electrocardiography will be outlined. The hemodynamics of congenital heart anomalies and newer diagnostic data of the disturbances will be presented by cardiac physiologists from Mexico. Cases from the University of Texas Medical Branch Hospitals will be presented, and question and answer periods will be provided.

All registrations must be made through the executive offices of the College, 4200 Pine Street, Philadelphia 4. At least half the registration fee should be paid when application for the course is filed, and the remainder not later than three weeks in advance of the course. Hotel accommodations may be reserved directly with the Hotel Galvez.

PERSONALS

Drs. J. E. Miller, Dallas; *L. M. Garrett,* Corpus Christi; and *E. E. Seedorf,* Temple, were among fifty-three candidates who became fellows of the American College of Radiology in June, the College *News Letter* reports.

Dr. Nowlin Watson, Clarksville, was honored on his fiftieth anniversary of medical practice with a surprise dinner given by his friends, the Dallas Morning *News* reports.

Dr. J. I. Allen, Bloomburg, the town's only practicing physician for forty-four years, was honored at a surprise party June 26 on his seventy-fifth birthday, states the Rusk County *News.*

Dr. George S. (Jack) Maxfield, Dallas, and Miss Louise Gribble, Waco, were married July 21 in Waco.

Dr. Louis Henry Porter II, Dallas, and Miss Sara Nell Collins, Sherman, were married June 23 in Sherman, reports the Sherman *Democrat.*

Announcement of the birth of sons has been made by *Dr. and Mrs. John S. Caldwell,* West Columbia; and *Dr. and Mrs. C. R. Bates* (Dr. Harriet Heger Bates), Dallas. *Dr. and Mrs. E. A. Blackburn,* Galveston, are the parents of a daughter, advises the Alumni *Bulletin* of the University of Texas Medical Branch.

Industrial Health Conference

The fourth Gulf Coast Regional Conference on Industrial Health will be held in Houston, September 27-29, with emphasis on industrial health in civil defense, industrial hygiene, and industrial medicine in small industries. Means of improving and maintaining the physical and psychological health of industrial workers in the Gulf Coast area will keynote the conference.

Approximately 500 representatives of the medical profession, industrial nursing, safety engineering, public health, insurance, and utility, sanitary and chemical engineering are expected to attend.

Registration fee is $3.50 and reservations will be handled by the Houston Chamber of Commerce, one of the sponsors of the conference. Other sponsoring organizations are the Texas State Department of Health, Baylor University College of Medicine, Industrial Health section of the American Medical Association, Texas Manufacturers Association, Gulf Coast Chapter of American Society of Safety Engineers, American Association of Industrial Nurses, Industrial Health Section of Harris County Medical Society, Harris County Health Unit, City of Houston Health Department, and the University of Texas Medical Branch.

Post Graduate Medical Assembly of South Texas

Dr. Frank Lancaster, Houston, was elected president of the Post Graduate Medical Assembly of South Texas at the seventeenth annual meeting held in Houston, July 23-25. Dr. Lancaster succeeds Dr. E. Trowbridge Wolf, Houston.

Dr. R. Marion Johnson, Houston, was named president-elect; Dr. C. A. Dwyer, Houston, was reelected secretary; and Dr. Charles D. Reece, Houston, was reelected treasurer. The following district vice-presidents were named: Dr. T. G. Blocker, Galveston, eighth; Dr. H. H. Duke, Baytown, ninth; and Dr. Dan Byram, Port Arthur, tenth.

Physicians named to the board of directors were Drs. F. E. Dye, Bay City; J. C. Guenther, La Grange; J. C. Dickson and C. A. Dwyer, Houston; A. R. Shearer, Mont Belvieu; J. H. Dameron, Livingston; B. H. Denman, Lufkin; and Dan Byram, Port Arthur.

The directors voted to meet in Houston in July, 1952.

TREATMENT OF ARMY PERSONNEL BY CIVILIANS

Authorized criteria and procedures to permit civilian physicians, clinics, and hospitals to care for Army personnel when governmental installations are not readily available have been emphasized by the Surgeon General. Cooperation of physicians to assure that servicemen receive necessary treatment and that the physicians are paid when such service is authorized has been requested by Army officials through the office of the Surgeon for the Fourth Army at Fort Sam Houston.

A statement of policy follows:

"Civilian medical care (other than elective) at the expense of the Army is authorized for commissioned officers, contract surgeons when employed by the Army on a full-time basis, warrant officers, enlisted personnel, cadets of the United States Military Academy, general prisoners, and prisoners of war when these personnel are on a duty status or when they are absent from their place of duty on leave or informal leave (pass) status. Applicants for enlistment in the Army and selectees also are authorized necessary civilian medical care at the expense of Army funds while they are being processed for enlistment or induction into the Army. Payment for civilian medical expenses incurred by Army personnel who are absent without leave is not authorized. Any obligations resulting from civilian medical care to Army personnel who are absent without leave are the responsibility of the Army individual concerned.

"Normally, civilian medical care for Army personnel is authorized only when there are no other federal medical treatment facilities available. First aid or emergency treatment is authorized at any time, notwithstanding the proximity of Army or other federal medical treatment facilities. In this connection, emergency medical care may be defined as that required to save life, limb, or prevent great suffering. Surgical operations should not be performed without prior approval of military authorities, unless indicated as an emergency procedure. Elective medical treatment in civilian medical treatment facilities or by civilian physicians will not be authorized as Army funds cannot be used for payment of these services.

"Due to the limitation of funds available to the Army, medical care of dependents of military personnel may obtain available medical care at Department of Defense medical facilities only. Any obligations resulting from civilian medical care to dependents of military personnel are the responsibility of the dependents concerned or their sponsors.

"As a general rule, local military commanders will furnish the civilian medical agency with prior written authority for ordinary medical care to Army personnel under their jurisdiction. In such cases, prior arrangements with the civilian medical agency will be made by the individual or by a proper military authority. For emergency cases treated without prior written authorization, the surgeon of the nearest military command should immediately be notified by the civilian medical agency, giving the individual's name, organization, nature of illness or injury, and statement of the practicability of transfer of the patient to an Army or other governmental hospital. The civilian agency or physician then will be advised without delay by the appropriate military authorities as to procedures to be followed.

"Bills for authorized medical care and treatment of Army personnel should be submitted to the commanding officer of the organization to which the patient belongs, or to the military authority who provided the authorization for the medical service. If the location of these individuals is not readily known or if such military commanders authorizing treatment have moved to other stations, the bill for services rendered in Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, should be sent to The Surgeon, Fourth Army, Fort Sam Houston, Texas."

Health Insurance in the United States

Results of a study of health insurance coverage have been released recently by the Senate's Committee on Labor and Public Welfare. The report covers the number of persons holding insurance, benefits, costs, medical costs and insurance protection, and medical care insurance and the industrial, rural, and aged population.

The survey reveals that 75 million people are insured in varying degrees by voluntary health plans; half of these are insured in a Blue Cross plan and 34 million are covered by insurance company policies. Approximately 18 million of the 48 million who carried some type of medical and surgical insurance at the end of 1950 were covered by a Blue Shield plan; another 30 million persons held insurance company policies of which more than 21½ million had group insurance and more than 8 million held individual policies.

Comprehensive medical care insurance is held by less than 3 per cent of the population. In addition, 11 per cent have hospital, surgical, and limited medical insurance; 21 per cent have protection against costs of both hospital and surgical care; and 15 per cent carry hospital insurance only. The proportion of persons having hospital insurance is twice as high in high income as in low income states.

Oklahoma City Clinical Conference

The twenty-fourth annual conference of the Oklahoma City Clinical Society will begin October 29 and continue for four days.

The postgraduate teaching program will include lectures and discussions by sixteen guest speakers from various medical and teaching centers as well as contributions from local physicians. The special guests are as follows:

DR. ARTHUR C. ALLEN, Memorial Cancer Center, New York, pathology.

DR. ALLAN C. BARNES, Ohio State University College of Medicine, Columbus, obstetrics and gynecology.

DR. CHARLES H. BROWN, Frank E. Bunts Educational Institute, Cleveland, internal medicine and gastroenterology.

DR. F. BAYARD CARTER, Duke University School of Medicine, Durham, N. C., obstetrics and gynecology.

DR. GEORGE CRILE, JR., Cleveland Clinic Hospital, Cleveland surgery.

DR. LEMUEL W. DIGGS, University of Tennessee School of Medicine, Memphis, internal medicine.

DR. O. SPURGEON ENGLISH, Temple University School of Medicine, Philadelphia, psychiatry.

DR. THOMAS C. GALLOWAY, Northwestern University School of Medicine, Chicago, otolaryngology.

DR. JACK S. GUYTON, Johns Hopkins University School of Medicine, Baltimore, ophthalmology.

DR. N. FREDERICK HICKEN, University of Utah Medical School, Salt Lake City, surgery.

DR. EDGAR HULL, Louisiana State University School of Medicine, New Orleans, internal medicine.

DR. GEORGE B. LOGAN, Mayo Clinic, Rochester, Minn., pediatrics.
DR. WINTHROP M. PHELPS, Children's Rehabilitation Institute, Cockeysville, Md., orthopedic surgery.
DR. WILLIAM W. SCOTT, Johns Hopkins University School of Medicine, Baltimore, urology.
DR. PHILIP THOREK, University of Illinois School of Medicine, Chicago, surgery.
DR. ASHTON L. WELSH, University of Cincinnati College of Medicine, Cincinnati, dermatology.

Dr. John W. Cline, San Francisco, President of the American Medical Association, will address the opening banquet meeting. In addition to general assemblies and panel discussions, daily luncheon round tables and a clinical pathologic conference are planned.

Any physician who is a member in good standing of a county medical society is eligible to attend the Oklahoma City meeting, all of the features of which are included in the $15 registration fee. Further information may be obtained from the executive secretary, 512 Medical Arts Building, Oklahoma City 2.

World Groups Plan Conference

Plans for an international conference on professional and technical education to improve training for medical and related personnel were discussed recently in Geneva by the Council of the World Medical Association and representatives of the World Health Organization. The proposed conference would be held in 1952 or 1953.

Other topics considered included measures to promote the free flow of essential medical supplies to all countries, exchange of information of common interest, contributions by each organization to publications of the other, representation of the WMA in regional conferences of WHO, and assistance of WHO in making known the "International Code of Medical Ethics" adopted by the WMA.

Representatives of the two groups also discussed assistance to be given to the World Health Organization by the World Medical Association in selecting experts for work in various fields and in cooperating to assure the widest possible adoption of nonproprietary names recommended by WHO for drugs and pharmaceutical products with due recognition of recommendations of the discoverers of the products.

The Executive Board of the World Health Organization ended its eighth session June 10 in Geneva and made plans to convene the ninth session there January 21, 1952.

Among the decisions made at the recent meeting were plans for technical discussions on the economic value of preventive medicine and methods of health protection for local areas to be held at the Fifth World Health Assembly meeting at Geneva on May 5, 1952; the increase of expenditures for relief for the civilian population of Korea and Turkish refugees from Bulgaria; and emergency action to prevent epidemics in famine-stricken areas in India.

MIDLAND DIAGNOSTIC CANCER CLINIC

The Midland Diagnostic Cancer Clinic, established December 11, 1950, has received temporary approval from the American College of Surgeons.

The clinic serves private and indigent patients in west Texas and eastern New Mexico and is housed in Midland Memorial Hospital. Complete roentgen, endoscopic, and laboratory facilities are available. The clinic has operated on funds from individuals in the area and from grants from the American Cancer Society.

TEXAS HEART ASSOCIATION PUBLICATION

The first issue of the Texas Heart Association's publication, "The Heart of Texas," was distributed in August to members of the Texas Heart Association, officers and directors of district chapters, and other supporters of the Association.

Published quarterly in Dallas, the booklet is prepared by a publications committee composed of S. E. McCreless, San Antonio, chairman; Dr. Victor E. Schulze, San Angelo; Dr. George R. Herrmann, Galveston; and Dr. Michael E. DeBakey, Houston. Each issue will contain one original article, as well as news of research, education, and Texas Heart Association news.

NEW METHOD OF MEASURING BODY HEAT

A new type of calorimeter designed continuously to measure and record the total amount as well as the individual fractions of heat lost in different ways by a living body was demonstrated April 12 at the Naval Medical Research Institute, Bethesda, Md., by its inventors, Drs. T. H. Benzinger and C. Kitzinger of the institute staff.

An important feature of the new calorimeter is its response to changes in heat output in half a minute. Also, no calculations need be made from the recorded findings as the machine registers directly the rate of heat loss in terms of calories per second. The operating principle of the machine is based on the fact that when heat passes through a layer of heat conducting matter, a difference in temperature will be found to exist between its two surfaces.

A patient is placed in a metal box structure lined on the inside with a layer of electric thermometers interlaced through plastic material and wired in a series (a "gradient layer"), and the outer box surface is kept at a constant temperature. Air is forced into the chamber by a pump. To prevent heat from escaping without being recorded, the air is passed through plate-shaped chambers lined with gradient layers where heat and moisture are recorded, also as calories.

REVERSIBLE BIFOCALS

A new type of eye glasses which allows the bifocal portion to be moved out of the way when not needed is described by Dr. David E. Rolf of Cleveland in the April issue of *Archives of Ophthalmology*, published by the American Medical Association.

The lenses of the glasses may be rotated or turned upside down by a unique method of attachment so that the bifocal part is on top. Dr. Rolf believes the flexibility of the lens arrangement will save many patients an extra pair of glasses and will offer a solution to persons who cannot become accustomed to walking while wearing bifocals. He points out that the new type lenses will offer advantages for patients engaged in occupations such as barbering, painting, paper hanging, and building.

Dangerous Substitute for Insulin

A nostrum advertised as of value in diabetes, "Cacalla Composita, Mexican Indian Root," in the eyes of the United States Food and Drug Administration is "worthless and extremely dangerous if employed as a substitute for insulin." Physicians are being asked to warn their patients with diabetes against this preparation, which is mailed to this country from Mexico City.

BASIC SCIENCE EXAMINATION

The Texas State Board of Examiners in the Basic Sciences has announced that examinations will be held October 19 and 20 in Austin. Applicants to take the examination should write the office of the board, 306 Nalle Building, Austin, for additional information. The application must be completed a week before the examination date.

In some countries one professionally trained nurse is available for each 300 population. In Kenya and Indonesia the rate is about one to 50 thousand. In French West Africa and in India it is one to about 100 thousand—WHO *Newsletter* May-June-July, 1951.

VOCATIONAL NURSE AND BARBITURATE LAWS

Two bills, one providing for the licensing of vocational nurses and the other for control of barbiturates, passed by the Texas Legislature last spring and effective September 7, are reprinted in full herewith because of their importance to the medical profession.

Members of the board which will administer the vocational nurse law have requested persons applying for licenses and others requesting information about the law to remember that until this month they had no legal standing and could not set up an office or determine policies. It will be some months before the provisions of the law can be activated fully.

Meeting in Austin on September 8, the board made plans to establish an office in Austin and elected officers. Membership of the board is as follows: Dr. G. E. Brereton, Dallas, president; Mrs. Frances Allen McCoulsky, San Angelo, vice-president; Mrs. Josie Roberts, Houston, secretary-treasurer; Miss Anna Laura Cole, Temple; Miss Marie Dillon, El Paso; Sister Eugenia, Austin; Mr. C. J. Hollingsworth, Lubbock; Dr. R. D. Holt, Jr., Meridian; and Mrs. Lena Weber, Taylor.

The text of the two laws follows:

LICENSING OF VOCATIONAL NURSES

H. B. 47, passed by the House of Representatives on February 12, 1951, and by the Senate on April 5, with concurrence by the House in Senate amendments April 17, was subsequently signed by the Governor to become law September 7. The text of the bill as finally passed follows:

AN ACT to authorize the issuance of licenses to Vocational Nurses in this State by a Board of Vocational Nurse Examiners; defining terms; prohibiting practicing as a Licensed Vocational Nurse without a license; allowing certain exceptions; creating a Board of Vocational Nurse Examiners and providing terms of office and qualifications for same; providing for the filling of vacancies on said Board; designating officers of the Board and prescribing duties; providing for Visiting Secretary; designating time of meetings by the Board; providing for holding of examinations and issuance of licenses for Vocational Nurses; prescribing minimum standards of teaching for Vocational Nurses; providing for the issuance of licenses to presently practicing Vocational Nurses; providing for license by reciprocity; providing for the renewal of licenses; providing for the payment of fees; providing for the revocation of licenses and the right of appeal in event of such revocation; making it unlawful for any person licensed as a Licensed Vocational Nurse to belong to any group, organization, association or union which advocates or recognizes the right to strike or which permits participation in organized work stoppage and prescribing the penalty therefor; providing for injunction in District Courts; providing for the accrediting of training schools, hospitals, and institutions for training Vocational Nurses; providing for the deposit of certain moneys in the State Treasury and making same available to the Commission for payments of certain necessary expenses for the administration of the Act; providing any unused balance at the end of the calendar year shall revert to the General Revenue Fund; providing all moneys expended in administering the Act shall be specifically set out in the General Departmental Appropriation Bill; providing a saving clause; repealing all laws or parts of laws in conflict herewith; and declaring an emergency.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

Section. 1. Definitions.

(a) The term "Licensed Vocational Nurse" as used in this Act, shall mean any person who directly attends or cares for the sick for compensation or hire, and whose personal qualifications, preliminary education or nursing education in biological, physical and social sciences will not qualify that person to become certified as a professional registered nurse, as defined and regulated under the laws of this State, and who uses the designation Licensed Vocational Nurse, or the abbreviation L.V.N.

(b) The term "Board" as used in this Act, shall mean the Board of Vocational Nurse Examiners as provided for hereafter in this Act.

Sec. 2. Prohibiting Practice Without a License. After the effective date of this Act, no person except those hereinafter expressly exempted, shall use the designation as a Licensed Vocational Nurse or the abbreviation L.V.N., unless such person shall hold a duly issued license as such, issued by the Board pursuant to the provisions of this Act.

Sec. 3. Exceptions. The provisions of this Act shall not apply to gratuitous nursing of the sick by friends or members of the family; nor shall the provisions of this Act apply to persons licensed by the Board of Nurse Examiners; nor shall the provisions of this Act apply to those persons who have graduated or may hereinafter graduate from the State Tuberculosis Sanatorium School of Nurses, so long as such persons nurse only tubercular patients; nor to persons employed by hospitals as maids, porters or orderlies; nor shall the provisions of this Act apply to persons who do not hold themselves out to the public as being Licensed Vocational Nurses or using the abbreviation L.V.N.

Sec. 4. Term of Office, Organization, Meetings of Board.

(a) There is hereby created a board to be known as the Board of Vocational Nurse Examiners, consisting of nine (9) members to be appointed by the Governor and confirmed by the State Senate. The Board shall be composed of persons with the following qualifications: three (3) members of the Board shall be Licensed Vocational Nurses who shall have had a course of training as a Vocational Nurse, or equal training under any similar title such as Nursing Attendant, Nursing Aid, Practical Nurse, Technical Nurse, Nurse Technician, or Vocational Nurse, in a hospital staffed by physicians licensed by the Texas State Board of Medical Examiners or an institution, college or university providing the type of nurse training program as provided herein, and shall have been in active practice as a Licensed Vocational Nurse or such similar title for one (1) full year immediately preceding their appointment, provided, however, that after the first three (3) appointed under this Act, the requirements shall be three (3) years of active practice as a Licensed Vocational Nurse; two (2) members of the Board shall be Registered Nurses, registered with the State Board of Nurse Examiners, and one (1) of whom is actively engaged in a teaching, administrative or supervisory capacity in a Vocational Nurse training program, and the other of whom is actively engaged in a teaching, administrative or supervisory capacity in an accredited school of nursing; an accredited school of nursing as used herein shall mean a school of nursing that is accredited by the State Board of Nurse Examiners of Texas; two (2) members of the Board shall be persons licensed by the Texas State Board of Medical Examiners and who have been actively engaged in the practice of medicine for a period of five (5) years prior to their appointment, and neither of whom is actively engaged as a hospital administrator; two (2) members of the Board shall be hospital administrators who are not licensed either as nurses or by the Texas State Board of Medical Examiners or by any other board which licenses persons to practice the healing arts in this State, and who have been actively en-

gaged in hospital administration for a period of five (5) years prior to appointment in a general hospital whose staff is composed of persons licensed by the State Board of Medical Examiners of Texas.

The term of office of each member of the Board shall be six (6) years, provided, however, in making the first appointments, the Governor shall appoint three (3) members of said Board for two (2) years, three (3) members for four (4) years, three (3) members for six (6) years, and thereafter the term of each member shall be six (6) years so that the terms of three (3) members shall expire every two (2) years, and provided further that appointment shall be made by the Governor in such manner that the term of two (2) members representing the same professional group shall not expire at the same time, and provided further that no member shall immediately succeed himself (or herself) in office. In case of death, resignation or vacancy from any cause on the Board, the vacancy of the unexpired term shall be filled by the Governor within sixty (60) days after the occurrence of such vacancy.

Each appointee to the Board of Vocational Nurse Examiners shall, within fifteen (15) days of the date of his appointment, qualify by taking the constitutional oath of office.

(b) At the first meeting after appointment of members, the Board shall elect a President, Vice-president, and Secretary-treasurer, and thereafter shall elect such officers yearly at an annual meeting. The Board may make such rules and regulations as may be necessary to govern its proceedings and to carry in effect the purposes of this law. The Secretary-treasurer shall be required to keep minutes of each meeting of said Board, a register of the names of all nurses licensed under this law, and books of account of fees received and disbursements; and all minutes, the register of Licensed Vocational Nurses and books of account shall be at all times open to public inspection. The State Auditor shall audit the books of this Board annually. The Board may select or employ a person other than a Board member as the Office Manager or Chief Clerk. The Board shall have the power to employ the services of stenographers, inspectors, and such other assistants as they deem necessary in carrying out the provisions of this law. The Secretary-treasurer shall be bonded by the Board in such amount as may be recommended by the State Auditor.

(c) The Board shall employ a full time Visiting Secretary, who shall have had at least five (5) years experience in teaching nursing in an accredited school of nursing or an accredited training program. During the first five (5) years after the effective date of this Act, the Visiting Secretary shall be a Registered Nurse, licensed by the State Board of Nurse Examiners. Thereafter, the Board may select either a Licensed Vocational Nurse or a Registered Nurse as the Visiting Secretary. The duties of said Secretary shall be to visit and inspect all schools for the training of Vocational Nurses at least once a year and to confer with superintendents of hospitals and superintendents of nursing schools as to the system of instruction given and as to accommodations and rules governing said schools in reference to its students. The Board shall prescribe such methods and rules of visiting, and such methods of reporting by said Secretary as may in its judgment be deemed proper.

(d) Regular meetings of the Board shall be held at least twice a year, one of which shall be designated as an Annual Meeting for election of officers and the reading of auditors' reports, and at both regular meetings licenses shall be issued to those qualified. At least twice each year the Board shall hold examinations for qualified applicants for licensure. Not less than sixty (60) days notice of the holding of examinations shall be given by publication in at least three (3) daily newspapers of general circulation, to be selected by the Board; special meetings shall be held upon request of four (4) members of the Board or upon the call of the President; six (6) members of the Board shall constitute a quorum for the transaction of business, and should a quorum not be present on the day appointed for any meeting, those persons present may adjourn from day to day until a quorum shall be present, providing that such period shall not be longer than three (3) successive days; each member of said Board shall be paid Ten Dollars ($10) per day for each day he attends meetings of the Board, not to exceed five (5) days for each meeting, and the time going to and returning from meetings shall be included in computing said time; in addition thereto, each member shall receive expenses incurred while actually engaged in the performance of the duties of the Board.

Sec. 4A. Beginning in 1957, each appointment to the Board of Vocational Nurse Examiners shall be a Licensed Vocational Nurse until all nine (9) members of the Board are Licensed Vocational Nurses.

Sec. 5. Examinations and Issuance of Licenses.

Every person desiring to be licensed as a Licensed Vocational Nurse or use the abbreviation L.V.N. in the State of Texas, shall be required to pass the examination given by the Board of Vocational Nurse Examiners; the applicant shall make application by presenting to the Secretary of the Board, on forms furnished by the Board, satisfactory sworn evidence that the applicant has had at least two (2) years of high school education or its equivalent, and has attained the age of eighteen (18) years, is of good moral character, and in good physical and mental health; evidence of this fact shall be made by submitting an affidavit by a physician on a form prescribed by the Board; a citizen of the United States or has made a declaration of intention of becoming a citizen; and who has completed an accredited course of not less than twelve (12) months in an accredited school for training Vocational Nurses. An accredited school as used herein shall mean one accredited by the Board. Application for examination by the Board shall be made at least thirty (30) days prior to the date set for the examination.

In conducting examinations and in accrediting schools of Vocational Nurses and hospitals as provided for in this Act, it shall be mandatory upon the Board to ascertain that each Vocational Nurse shall have been taught the fundamentals of basic bedside nursing in the home and in the hospital. The course prescribed shall include cooking and preparation of standard simple diets for the sick; room cleaning and arrangement of the sickroom in the home and hospital; bed making; bathing and personal care of patients; cleansing and care of utensils used by the sick; the simple principles of hygiene and sanitation in the home and hospital; the methods of taking and recording temperature, pulse rate, respirations, blood pressure readings, fluid intake and output measurements; administration of foods and drugs by mouth, by rectum, by subcutaneous hypodermic injection, and such other subjects and procedures as may be regularly taught in the majority of such training programs.

The Board shall issue Temporary Permits to any Vocational Nurse who furnishes proof of graduation from an Accredited School of Vocational Nursing in this or any other State to practice Vocational nursing from the time of receipt of application until the time of completion of the next regular or special examination conducted by the Board.

Sec. 6. Existing Vocational Nurses Licensed Without Examination. All persons who have practiced or engaged in the activity as a Vocational Nurse, or any similar title used for a non-professional unregistered nurse, under a licensed physician or a director of nursing service for one (1) year immediately prior to the effective date of this Act, may procure a license as a Licensed Vocational Nurse from the Board

without examination upon the satisfactory proof as prescribed by the Board of such activity for the required time, and upon the payment of the fee hereafter required. Applicants for a license under this Section may apply for a license hereunder within one (1) year after the effective date of this Act and not thereafter.

Sec. 7. Reciprocity. Any applicant of good character who holds a license as an Attendant Nurse, Nursing Attendant, Nurse Aid, Nursing Aid, Practical Nurse, Technical Nurse, Nurse Technician, Vocational Nurse or any similar title used for a non-professional nurse unqualified for licensure as a Registered Nurse from another state whose requirements are equal to those of Texas, and whose individual qualifications shall be equivalent to those required by this law, may be granted a license to practice non-professional nursing as a Licensed Vocational Nurse in this State without examination provided a fee of Ten Dollars ($10) is paid to the Board by such applicant.

Sec. 8. Renewal. Before the first day of August of each year, the Secretary of the Board shall mail an application form for a renewal certificate to all licensees. The application shall contain such information as the Board may deem necessary for its records. On or before the first day of September of each year every Licensed Vocational Nurse in this State shall pay to the Secretary-treasurer of the Board of Vocational Nurse Examiners an annual renewal fee of One Dollar ($1) for the renewal of her license as a Licensed Vocational Nurse for the current year. On receipt of said annual renewal fee and application the Board shall issue an annual renewal certificate bearing the number of the license and the year for which renewed. When a Licensed Vocational Nurse shall have failed to pay her annual renewal fee before November 1st of each year, it shall be the duty of the Board to notify such Licensed Vocational Nurse at her address known to the Board that such annual renewal fee is due and unpaid and if payment of the fee is not received by the Secretary of the Board of Vocational Nurse Examiners within twenty (20) days after notification, said license shall be suspended and such person in order to be reinstated shall be required to pay one (1) annual renewal fee as a penalty in addition to all fees said person may be in arrears. Said annual renewal fee, as set forth above, shall be due on September 1st of each year and shall become delinquent on November 1st of each year.

Practicing as a Licensed Vocational Nurse without an annual renewal certificate for the current year as provided herein shall have the same force and effect and be subject to all penalties of practicing as a Licensed Vocational Nurse without a license.

Sec. 9. Fees. The following shall be the fees charged by the Board under this Act; application and examination fee, Ten Dollars ($10); fee of Ten Dollars ($10) for licensing existing Vocational Nurses in accordance with Section 6 hereof; annual renewal fee, One Dollar ($1); penalty for late annual renewal fee, One Dollar ($1); fee for license by reciprocity, Ten Dollars ($10); fee for accrediting training programs, Twenty-five Dollars ($25). All expenses under this Act shall be paid from the fees collected by the Board under this Act, and no expense incurred under this Act shall ever be charged against the funds of the State of Texas.

Sec. 10. Revocation. The Board may revoke any license issued under the provisions of this Act for gross incompetence, dishonesty, malpractice, intemperate use of drugs or alcoholic beverages, false or deceptive representations in obtaining a license, insanity of the licensee, proof of the conviction of the licensee of a felony involving moral turpitude under the laws of this State or of any other state or of the United States, or for any other reason which shall be deemed just cause by the Board. Such revocation shall be accomplished by a majority vote of the Board after a hearing held on specific charges filed against such licensee, which charges shall be made in writing, under oath and filed by the Secretary. A certified copy of the charges and a notice of the hearing before the Board shall be served on the licensee whose license is sought to be revoked not less than thirty (30) days prior to the hearing of such charges.

If the Board shall make and enter an order revoking any license as hereinabove authorized, the person whose license shall have been revoked, may, within thirty (30) days after the entering of such order, and not thereafter, take an appeal to the District Court of the county of residence of the person whose license shall have been so revoked, by filing an appropriate petition for such purpose. Said cause shall be placed on the docket of said Court in the name of the party filing same, as plaintiff, and the Board as defendant. It shall be the duty of said Board, upon the filing of a petition asking for an appeal and review of such proceedings of said Board, after citation in such cause has been issued and served as in other civil cases, to prepare and transmit to such District Court a transcript of the order hereinabove provided for, the same to be certified as true and correct by the secretary of said Board. The District Court shall thereafter set such cause for hearing as in other civil cases. Upon the hearing of such cause, if the Court or jury shall find that the action of the Board, in revoking such license is not well taken, such Court shall by appropriate order and judgment set aside such action of the Board and reinstate the license; but if the Court or jury shall sustain such action of the Board, an order in appropriate form shall be entered sustaining and affirming the action of the Board. Said trial shall be de novo and shall not be subject to the substantial evidence rule in sustaining administrative action by the Board. Either party may demand a jury in such trial, and either party may appeal the judgment of the Court, as in other civil cases. If no appeal be taken from the order of the trial court, the same shall become final after thirty (30) days.

Sec. 10A. It shall be unlawful for any individual who has been licensed as a Licensed Vocational Nurse to be a member of any group, organization, association, or union which advocates or recognizes the right to strike, or which permits its members to engage in an organized work stoppage. Any person who has been licensed as a Licensed Vocational Nurse and who violates this Section of this Act, shall have his or her license suspended for a period of two (2) years, and the Board shall thereupon enter an order to such effect upon its minutes. It shall be incumbent upon the individual after the expiration of two (2) years to apply for a new license as a Licensed Vocational Nurse should such individual desire to engage in such work as herein authorized by this Act. It is the declared public policy of this State that a person who requires nursing care should be protected from organized work stoppages of any kind or character.

Sec. 11. Injunctions. Six (6) years after the effective date of this Act, any person practicing nursing who is not licensed as a Vocational Nurse, or as a Registered Nurse, or as a Tubercular Nurse, and who does not come under any of the exceptions set out in this Act, may be enjoined and restrained by a District Court from practicing nursing upon petition of the Board.

Sec. 12. Accrediting of Training Programs.

(a) Any general hospital in regular use for patients which has a registered nurse in charge of nursing, and whose staff consists of one or more licensed physicians licensed by the State Board of Medical Examiners, may qualify as an accredited hospital for Vocational Nurse Training, provided it can and will meet requirements of the Board for the training of Vocational Nurses.

(b) Any institution which shall be qualified under Section 5, and under regulations promulgated by the Board to conduct a course for training Vocational Nurses shall apply to the Board and shall accompany said application with evidence that it is prepared to give a course of not less than twelve (12) months for the training of Vocational Nurses; such application shall be accompanied by the appropriate fee provided for in Section 9 of this Act; upon receipt of such application the Board shall cause a survey of the institution making such application to be made by a qualified representative of such Board. If in the opinion of a majority of the members of the Board, the requirements for an accredited course for training Vocational Nurses are met by such institution, such institution shall be placed on an accredited list of such accredited institutions given for training Vocational Nurses. It shall further be the duty of the Board, from time to time, to survey all courses for such training of Vocational Nurses offered within the State. Written reports of such surveys shall be submitted to the Board. If the Board shall determine as a result of such surveys that any training school, hospital or institution heretofore accredited as an institution for such training for Vocational Nurses is not maintaining the standards required by law and by the rules and regulations promulgated by the Board, notice thereof shall immediately be given to such training school, hospital or institution. If the requirements of the Board are not complied with within a reasonable time set by the Board in such notices, such institution shall be removed from the list of approved training schools, hospitals or institutions offering courses for training Vocational Nurses within this State.

Sec. 13. Upon and after the effective date of this Act, all moneys derived from fees, assessments, or charges under this Act, shall be paid by the Commission into the State Treasury for safekeeping, and shall by the State Treasurer be placed in a separate fund to be available for the use of the Commission in the administration of the Act upon requisition of the Commission. All such moneys so paid into the State Treasury are hereby specifically appropriated to the Commission for the purpose of paying the salaries and expenses of all persons employed or appointed as provided herein for the administration of this Act, and all other expenses necessary and proper for the administration of this Act, including equipment and maintenance of any supplies for such offices or quarters as the Commission may occupy, and necessary traveling expenses for the Commission or persons authorized to act for it when performing duties hereunder at the request of the Commission. At the end of the calendar year, any unused portion of said funds in said special account shall be set over and paid into the General Revenue Fund. The Comptroller shall, upon requisition of the Commission, from time to time draw warrants upon the State Treasurer for the amount specified in such requisition, not exceeding however, the amount in such fund at the time of making any requisition; provided, however, that all moneys expended in the administration of this Act shall be specified and determined by itemized appropriation in the General Departmental Appropriation Bill.

Sec. 14. Constitutionality. If any section, subsection or part of this Act shall be held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the remaining portions thereof, it being the express intention of the Legislature to enact such Act without respect to such section, subsection or a part so held to be invalid or unconstitutional.

Sec. 15. All laws or parts of laws in conflict herewith are hereby repealed to the extent of the conflict.

Sec. 16. The fact that there is a great need for Vocational Nurses who may adequately perform many of the tasks of caring for the sick without being Registered Nurses and without their having to take the lengthy training incident to becoming a Registered Nurse, and the fact that the health and welfare of the people of the State will be served by a uniform licensing system regulating such Vocational Nurses, create an emergency and an imperative public necessity and that the Constitutional Rule requiring bills to be read on three several days in each House be, and the same is hereby, suspended, and this Act shall take effect from and after its passage, and it is so enacted.

REGULATION OF BARBITURATES

S. B. 295 was passed by the Senate on April 24, 1951, and by the House on May 22. The Senate concurred in amendments by the House on May 28. The bill as passed, as signed by the Governor, and in effect September 7 is as follows (italics emphases supplied):

AN ACT regulating the possession, handling, sale and distribution of barbiturates, amphetamine, and desoxyephedrine, or any compound, manufacture mixture, or preparation thereof, except those preparations intended for nasal or other external uses; providing penalties for violations of this Act; providing for injunctions against defendants convicted of violations of this Act; and declaring an emergency.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

Section 1. Finding and Declaration of Policy. The Legislature of the State of Texas hereby finds that it is essential to the public health and safety to regulate and control the handling, sale, and distribution of barbiturates, as defined in this Act.

It is, therefore, hereby declared to be the policy and intent of the Legislature of the State of Texas and the purpose of this Act to regulate and control such handling, sale, and distribution, and, in particular, but without limitation of such purpose, to insure that the public shall receive the therapeutic benefits of barbiturates under medical supervision to the full extent required to assure safety and efficiency in their use; to complement and supplement the laws and regulations of the Congress of the United States and the appropriate agencies of the Federal Government affecting such handling, sale, and distribution; to prevent such handling, sale, or distribution for harmful or illegitimate purposes; and to place upon manufacturers, wholesalers, licensed compounders of prescriptions, and persons prescribing such drugs, a basic responsibility for preventing the improper distribution of such drugs to the extent that such drugs are produced, handled, sold, or prescribed by them.

Sec. 2. Definitions. For the purposes of this Act:

(a) The term "barbiturate" means the salts and derivatives of barbituric acid, also known as malonyl urea, having hypnotic or somnifacient action, and compounds, preparations and mixtures thereof.

(b) The term "delivery" means sale, dispensing, giving away, or supplying in any other manner.

(c) The term "patient" means, as the case may be: (1) the individual for whom a barbiturate is prescribed or to whom a barbiturate is administered; or (2) the owner or the agent of the owner of the animal for which a barbiturate is prescribed or to which a barbiturate is administered.

(d) The term "person" includes individual, corporation, partnership, and association.

(e) The term "practitioner" means a person licensed by the State Board of Medical Examiners, State Board of Dental Examiners, State Board of Chiropody Examiners, and State Board of Veterinary Medical Examiners to prescribe and administer barbiturates.

(f) The term "pharmacist" means a person duly registered with the State Board of Pharmacy as a compounder, dispenser, and supplier of drugs upon prescription.

(g) The term "prescription" means a written order, and in cases of emergency, a telephonic order, by a practitioner to a pharmacist for a barbiturate for a particular patient, which specifies the date of its issue, the name and address of such practitioner, the name and address of the patient (and, if such barbiturate is prescribed for an animal, the species of such animal), the name and quantity of the barbiturate prescribed, the directions for use of such drug, and the signature of such practitioner.

(h) The term "manufacturer" means persons other than pharmacists who manufacture barbiturates, and includes persons who prepare such drugs in dosage forms by mixing, compounding, encapsulating, entableting, or other process.

(i) The term "wholesaler" means persons engaged in the business of distributing barbiturates to persons included in any of the classes named in subdivisions (1) to (6) inclusive of Section 5.

(j) The term "warehouseman" means persons who store barbiturates for others and who have no control over the disposition of such barbiturates except for the purpose of such storage.

(k) The term "Board" means Texas State Board of Pharmacy.

Sec. 3. Prohibited Acts. The following acts, the failure to act as hereinafter set forth, and the causing of any such act or failure are hereby declared unlawful except as provided in Section 4:

(a) The delivery of any barbiturate unless:

(1) Such barbiturate is delivered by a pharmacist, *upon an original prescription,* and there is affixed to the immediate container in which such drug is delivered a label bearing (A) the name and address of the owner of the establishment from which such drug was delivered; (B) the date on which the prescription for such drug was filled; (C) the number of such prescription as filed in the prescription files of the pharmacist who filled such prescription; (D) the name of the practitioner who prescribed such drug; (E) the name and address of the patient, and if such drug was prescribed for an animal, a statement showing the species of the animal; and (F) the directions for use of the drug as contained in the prescription; or

(2) Such barbiturate is delivered by a practitioner in the course of his practice and the immediate container in which such drug is delivered bears a label on which appear the directions for use of such drug, the name and address of such practitioner, the name and address of the patient, and, if such drug is prescribed for an animal, a statement showing the species of the animal.

(b) The refilling of any prescription for a barbiturate unless and as designated on the prescription by the practitioner.

(c) The delivery of a barbiturate upon prescription unless the pharmacist who filled such prescription files and retains it as required in Section 6.

(d) The failure by a practitioner who gives a prescription to a pharmacist by telephone to furnish such prescription to such pharmacist in writing within seventy-two (72) hours thereafter.

(e) The possession of a barbiturate by any person unless such person obtained the drug under the specific provision of Section 3a (1) and (2) of this Act and possesses the drug in the container in which it was delivered to him by the pharmacist or practitioner selling or dispensing the same; and any other possession of a barbiturate shall be prima facie evidence of illegal possession.

(f) The refusal to make available and to accord full opportunity to check any record or file as required by Section 6.

(g) The failure to keep records as required by paragraph (a) or (b) of Section 6.

(h) The using of any person to his own advantage, or revealing, other than to an officer or employee of the State Board of Pharmacy or to a court when relevant in a judicial proceeding under this Act, any information required under the authority of Section 6, concerning any method or process which as a trade secret is entitled to protection.

Sec. 4. Applications. Nothing in this Act shall apply to a compound, mixture, or preparation containing salts or derivatives of barbituric acid which is sold in good faith for the purpose for which it is intended and not for the purpose of evading the provisions of this Act if:

(a) Such compound, mixture, or preparation contains a sufficient quantity of another drug or drugs, in addition to such salts or derivatives, to cause it to produce an action other than its hypnotic or somnifacient action; or

(b) Such compound, mixture, or preparation is intended for use as a spray or gargle or for external application and contains, in addition to such salts or derivatives, some other drug or drugs rendering it unfit for internal administration.

Sec. 5. Exempted Practices. The provisions of paragraphs (a) and (e) of Section 3 shall not be applicable: (a) to the delivery of barbiturates to persons included in any of the classes hereinafter named, or to the agents or employees of such persons, for use in the usual course of their business or practice or in the performance of their official duties, as the case may be; or (b) to the possession of barbiturates by such persons or their agents or employees for such use:

(1) Pharmacists;

(2) Practitioners;

(3) Persons who procure barbiturates (A) for disposition by or under the supervision of pharmacists or practitioners employed by them; or (B) for the purpose of lawful research, teaching, or testing, and not for resale;

(4) Hospitals and other institutions which procure barbiturates for lawful administration by practitioners;

(5) Officers or employees of Federal, State, or local Government;

(6) Manufacturers and Wholesalers;

(7) Carriers and Warehousemen.

Sec. 6. Records. (a) Persons (other than carriers) to whom the provisions of Section 5 are applicable shall: (1) make a complete record of all stocks of barbiturates on hand on the effective date of this Act and retain such record for not less than two (2) calendar years immediately following such date; and (2) retain each commercial or other record relating to barbiturates maintained by them in the usual course of their business or occupation, for not less than two (2) calendar years immediately following the date of such record.

(b) Pharmacists shall, in addition to complying with the provisions of subsection (a), retain each prescription for a barbiturate received by them for not less than two (2) calendar years immediately following the date of the filling or the date of the last refilling of such prescription, whichever is the later date.

Sec. 7. Inspections, Examinations. Persons required to keep files or records relating to barbiturates by Section 6 shall, upon the written request of an officer or employee duly designated by the State Board of Pharmacy: (1) make such files or records available to such officer or employee, at all reasonable hours, for inspection and copying; and (2) accord to such officer or employee full opportunity to check

the correctness of such files or records, including opportunity to make inventory of all stocks of barbiturates on hand; and it shall be unlawful for any such person to fail to make such files or records available or to accord such opportunity to check their correctness.

Sec. 8. All provisions of this Act shall also apply to amphetamine and desoxyephedrine, or any compound, manufacture mixture, or preparation thereof, except those preparations intended for nasal or other external use.

Sec. 9. All barbiturates as herein defined, manufactures, sold or had in possession contrary to any provision hereof shall be and the same are declared to be contraband and shall be subject to seizure and confiscation by any officer or employee of the Board or by any peace officer who is authorized to and charged with the duty of enforcing the provisions of this Act.

Sec. 10. The Board shall have the right to institute an action in its own name to enjoin the violation of any of the provisions of this Act. Said action for an injunction shall be in addition to any other action, proceedings or remedy authorized by law.

Sec. 10a. Any legal proceedings instituted under the provisions of this Act by the Board shall be by any county attorney, district attorney or the Attorney General. The Board is hereby specifically prohibited from employing private counsel in any legal proceedings instituted by or against said Board under the provisions of this Act.

Sec. 11. Upon a trial for a violation of any of the provisions of this Act a conviction may be had upon the uncorroborated testimony of an accomplice.

Sec. 12. In any complaint, information, or indictment, and in any action or proceeding brought for the enforcement of any provisions of this Act, it shall not be necessary to negative any exception, excuse, proviso, or exemption contained in this Act, and the burden of proof of any such exception, excuse, proviso, or exemption shall be upon the defendant.

Sec. 13. Penalties. Any person, firm or corporation violating any of the provisions of this Act, shall be fined not to exceed One Thousand ($1,000.00) Dollars, or confined in jail for a period of not less than thirty (30) days nor more than two (2) years, or both such fine and imprisonment. For any second or succeeding offense of this Act, any person so violating the same shall be confined in the penitentiary not less than two (2) years, nor more than five (5) years.

Sec. 14. Severability Clause. If any provision of this Act is declared unconstitutional or the applicability thereof to any person or circumstance is held invalid, the constitutionality of the remainder of the Act and the applicability thereof to other persons and circumstances shall not be affected thereby.

Sec. 15. Emergency Clause. The fact that the calendars of both Houses are likely to become crowded; and the further fact that the changes proposed herein need to become effective at the earliest possible time, create an emergency, and an imperative public necessity that the Constitutional Rule requiring bills to be read on three several days in each House be suspended; and said Rule is hereby suspended, and this Act shall take effect and be in force from and after its passage, and it is so enacted.

"HEALTHY LIVING" GETS INTERNATIONAL NOTICE

"Healthy Living in Our County," the radio health program developed at the University of Texas and sponsored by numerous groups including the Woman's Auxiliary to the Texas Medical Association, has found favor with the United Nations Education, Scientific, and Cultural Organization. UNESCO asked for "Healthy Living" kits for use through its Education Clearing House for international conferences and seminars and expects to include notice of the material in its monthly "Fundamental Education Abstracts" and the forthcoming bibliography of health education materials prepared jointly by UNESCO and the World Health Organization, reports *Here and There*, a bulletin issued by the Texas Tuberculosis Association.

PHYSICALLY HANDICAPPED WEEK

October 7 to 13 is "National Employ the Physically Handicapped Week," a time when Americans are asked by the President to take action in providing greater job opportunities for millions of employable handicapped workers.

Observance of this week was authorized by Congress six years ago, and since that time state employment services have made more than 1,300,000 placements of handicapped workers in jobs suitable to their abilities. Properly placed, handicapped people have proved to be safe and efficient. Dr. Ross T. McIntire, chairman of the President's Committee for National Employ the Physically Handicapped Week, urges Americans not to overlook the untapped skills which lie in the physically impaired men and women of the nation.

LIBRARY SECTION

PACKAGE SERVICE

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Request for packages should be addressed "Library, Texas Medical Association, 700 Guadalupe Street, Austin, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Packages are allowed to remain in the hands of the borrower for 14 days.

ACCESSIONS

The following additions were made to the Library during August:

Reprints received, 955.
Journals received, 326.
Books received, 20.

Evaluation of the Pelvis in Obstetrics, No. 1, American Monograph Series, Moloy; *DeLee's Obstetrics for Nurses*, Davis and Scheckler; *Textbook of Obstetrics*, Bookmiller and Bowen; *Operations of General Surgery*, Orr, W. B. Saunders Company, Philadelphia.

Biochemical Institute, Studies IV, Biochemical Institute and Department of Chemistry, University of Texas, Austin.

Terramycin, Review of Literature, Antibiotic Division, Charles Pfizer and Company, Brooklyn, N. Y.

Bulletin, American College of Radiology, 1951, American College of Radiology, Chicago.

Tenth Semi-Annual Report, Atomic Energy Commission, U. S. Atomic Energy Commission; *Proceedings of the First Research Conference of Psychosurgery*, Bigelow (editor); *Chronic Illness, Digest Selected References*, Turner, U. S. Government Printing Office, Washington, D. C.

Clinical Problems of Advancing Years, Second Symposium, Town Hall, Philadelphia, Smith, Kline & French Laboratories, Philadelphia.

The Odyssey of Modern Drug Research, Burlingham, Upjohn Company, Kalamazoo, Mich.

Manual Therapy, Mennell; *Tobacco and the Cardiovascular System,* Roth; *Causalgia,* Mayfield; *Symposia on Nutrition, Vol. II, Plasma Proteins,* Youmans (editor); *Chronology of Ophthalmic Development,* Keeney, Charles C. Thomas, Publisher, Springfield, Ill.

Let's Have Healthy Children, Davis; *Let's Cook It Right,* Davis, Harcourt Brace and Company, New York.

Diabetes Control, Bortz, Le .nd Febiger, Philadelphia.

Allergy in Relation to Pediatrics, Ratner, Bruce Publishing Company, St. Paul, Minn.

The Public Health Nurse and the Patient, Gilbert, Commonwealth Fund, Harvard University Press, Cambridge, Mass.

SUMMARY OF SERVICE

Local users, 72.	Borrowers by mail, 51.
Local packages, 39.	Packages mailed, 63.
Items borrowed, 543.	Film borrowers, 57.
	Films loaned, 53.

MOTION PICTURE FILM LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be requested to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films in the hands of the borrower.

Request for films should be addressed to "Motion Picture Film Library, Texas Medical Association, 700 Guadalupe Street, Austin, Texas." A list of available films with descriptions, will be furnished on request.

The following motion pictures were loaned by the Library during the month of August:

Appendicitis in Childhood (Mead Johnson)—Pediatrics Class, St. Paul's Hospital School of Nursing, Dallas.

Appraisal of the Newborn (Mead Johnson)—Dr. William W. McClellan, Donna.

As Others See Us (American Hospital Association)—Hopkins County Memorial Hospital, Sulphur Springs.

Aureomycin, The Versatile Antibiotic (Lederle Laboratories)—Veterans Administration Hospital, Marlin.

Blood Transfusion (British Information Services)—South Plains Medical Technologists, Lubbock.

Breast Self-Examination (American Cancer Society)—Clairette Home Demonstration Club, Clairette.

Breech Extraction with Forceps (Mead Johnson)—Hopkins County Memorial Hospital, Sulphur Springs.

Cataract Surgery (Dr. Ray K. Daily)—Veterans Administration Hospital, Marlin.

Cervical Smears (Dr. Karl J. Karnaky)—Coleman County Medical Society, Coleman.

Cesarean Section, A Low Cervical (Mead Johnson)—Dr. C. G. Goddard, Bastrop.

Chest Diseases, Surgery In (British Information Services)—Brackenridge Hospital, Austin.

Cholecystectomy (Mead Johnson)—Dr. J. T. Lowry, Laredo.

Coarctation of the Aorta, Surgical Treatment for (Dr. Philip Thorek)—U. S. Army Hospital Staff, Fort Hood.

Conquering Darkness (Hurst Eye, Ear, and Throat Clinic)—Veterans Administration Hospital, Marlin.

Diphtheria and Croup (Lederle Laboratories)—Hopkins County Memorial Hospital, Sulphur Springs.

Dysmenorrhea, Primary (G. D. Searle and Company)—Coleman County Medical Society, Coleman.

Empyema, The Treatment of (Mead Johnson)—Dr. John T. Lowry, Laredo.

Esophagus, Surgical Treatment for Carcinoma of the Lower End of (Dr. Philip Thorek)—Bastrop Clinic, Bastrop.

Eyelids, Surgery (Dr. Ray K. Daily)—Veterans Administration Hospital, Marlin.

Eyes for Tomorrow (Hurst Eye, Ear, and Throat Clinic)—Veterans Administration Hospital, Marlin.

Eyes, Your Children's (British Information Services)—Medical and Surgical Clinic, Laredo, and Veterans Administration Hospital, Marlin.

Feeding the Infant During the First Year (Mead Johnson)—Bastrop Clinic, Bastrop.

Gastrectomy, Safer (Billy Burke Productions)—Medical Arts Clinic, Sherman.

Glaucoma Operations (Dr. Ray K. Daily)—Veterans Administration Hospital, Marlin.

Goiter Surgery (Mead Johnson)—Staff, Stephenville Hospital and Clinic, Stephenville, and Seton Hospital Surgical Staff, Austin.

Hemicolectomy for Carcinoma of the Right Side of the Colon (Dr. Philip Thorek)—Staff, Stephenville Hospital and Clinic, Stephenville, and Dr. John T. Lowry, Laredo.

Hepatitis, Observations on (Mead Johnson)—Hopkins County Memorial Hospital, Sulphur Springs.

Here's Health the American Way (American Medical Association)—South Plains Medical Technologists, Lubbock.

Hysterectomy (Mead Johnson)—Dr. John T. Lowry, Laredo.

Immunization Against Infectious Diseases (Lederle Laboratories)—Dr. C. G. Goddard, Bastrop.

Infantile Paralysis, Orthopedic Treatment of (Mead Johnson)—Scott and White Memorial Hospitals School of Nursing, Temple.

Injuries, Athletic, Care and Prevention (Becton, Dickinson and Company)—Medical Arts Clinic, Sherman.

Malaria (British Information Services)—Hopkins County Memorial Hospital, Sulphur Springs.

Nasal Sinusitis (E. Fougera and Company)—Medical and Surgical Clinic, Laredo.

Normal Delivery (Mead Johnson)—Hopkins County Memorial Hospital, Sulphur Springs.

On Our Own (National Foundation for Infantile Paralysis)—Scott and White Memorial Hospitals School of Nursing, Temple.

Oxygen Therapy Procedures (Linde Air Products)—Stephenville Hospital and Clinic, Stephenville.

Pediatric Anomalies (Mead Johnson)—St. Paul's School of Nursing, Dallas.

Polio—Diagnosis and Management (British Information Services)—Henderson County Medical Society, Athens.

Poliomyelitis, Sister Kenny Method of Treatment of (Dr. Herbert E. Hipps)—Scott and White Memorial Hospitals School of Nursing, Temple.

Portacaval Shunt for Portal Hypertension (Dr. Philip Thorek)—Seton Hospital Surgical Staff, Austin.

Ptosis, Operations for (Dr. Ray K. Daily)—Veterans Administration Hospital, Marlin.

Question in Time (American Cancer Society)—Clairette Home Demonstration Club, Clairette.

Red Wagon (Swift and Company)—Johns Hospital and Clinic, Taylor.

Resuscitation of the Newborn (Mead Johnson)—St. John's Hospital Staff Meeting, San Angelo.

Roentgen Pelvimetry (Mead Johnson)—Hopkins County Memorial Hospital, Sulphur Springs.

Spontaneous Delivery (Mead Johnson)—Hopkins County Memorial Hospital, Sulphur Springs.

Strabismus Surgery (Dr. Ray K. Daily)—Veterans Administration Hospital, Marlin.

Techniques of Injection (Becton, Dickinson and Company)—Memorial Hospital, Sulphur Springs.

Uterosalpingography (E. Fougera and Company)—Dr. G. H. Brandau, Houston, and Dr. C. G. Goddard, Bastrop.

Vagotomy for Ulcerative Colitis (Dr. Philip Thorek)—Wilson N. Jones Hospital Staff, Sherman.

Varicose Veins and Their Complications (Becton, Dickinson and Company)—Dr. G. H. Brandau, Houston.

Varicose Veins, Treatment of (G. D. Searle and Company)—Dr. John T. Lowry, Laredo.

BOOK NOTICES

[1]Nasal Sinuses

O. E. Van Alyea, M. D., Associate Clinical Professor, Department of Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago. Second edition. Cloth, 317 pages. $9. Baltimore, Williams and Wilkins Company, 1951.

This edition is new material. It contains an excellent summary of antibiotic medication and antihistaminic drugs. Acute nasal infection is discussed. Each group of sinuses is presented separately. Anatomy and approaches are well correlated. Variations are illustrated and percentages from several large series of cadaver studies are presented. Pertinent embryology is given.

The volume is well illustrated. Photography, drawings, and roentgenograms are used generously and well.

In its intricate field, where surgical approaches and anatomic landmarks are so important and elusive, this book makes a definite addition to any shelf. The chapter on physiology of the nose is brief, as it should be in a book of this title and presentation. It is concise and valuable. The case for conservative treatment of the nose is strengthened. Underlying and using this finer technical array, a broad and scholarly contribution is made to modern practice in this radically changing field.

[2]Spatial Vector Electrocardiography—Clinical Electrocardiographic Interpretation

Robert P. Grant, M. D., and E. Harvey Estes, Jr., M. D. Cloth, 148 pages. $4.50. Philadelphia, Blakiston Company, 1951.

This book is not intended by the authors to be a textbook on electrocardiography. It deals only with the ventricular complexes of the electrocardiogram, that is, the QRS, ST, and T forces.

Vectoral methods of electrocardiographic interpretation are simply expressions of the electrical forces in magnitude, direction, and sense of the ventricular complexes. In these methods all the various deflections recorded in the conventional or frontal leads are expressed by an average mean vector.

The first part of the book is devoted to the spatial vector method of interpretation. The electrical field of the heart in the spatial vector method of interpretation can best be summarized by considering the body as a regular cylindric volume conductor; all irregularities and variations in contour and size are ignored. The heart is treated as if it were a single point source of electrical potential lying exactly at the center of this cylinder. The precordial leads and limb leads are considered to be electrically equidistant from the heart. The interposed tissue is considered to be completely homogeneous in its electrical properties.

The second part of the book is devoted to the clinical application of the spatial vector method. This part is the larger and, to the clinician, more interesting portion. Here is presented in a simple way a remarkable technique for the interpretation of the electrocardiogram. This method of interpretation has unlimited potential values in analyzing the electrocardiogram. No longer are the wave contours and wave sizes essential in electrocardiographic interpretation.

This spatial vector method gives relatively equal weight to all the conventional leads, and in effect it generalizes the properties of the electrical field, reducing them to two or three mean or general calculations.

Using this method, "pattern" memorizing is completely abolished. No longer is one frontal plane lead superior to another frontal plane lead. With this method the more of these leads taken the better the interpretation. As long as clinical electrocardiography is at the mercy of body-surface recording techniques, this spatial vectoral method represents very nearly the simplest of all possible rational methods for the clinical interpretation of the normal and the abnormal electrocardiograms.

This book is highly recommended for all clinicians and especially those interested in the electrocardiogram.

[3]Endoscopy

Edward B. Benedict, A. B., M. D., F.A.C.S., Assistant Clinical Professor of Surgery, Harvard Medical School; Endoscopist, Massachusetts General Hospital, Boston. Cloth, 363 pages. $10. Baltimore, Williams and Wilkins Company, 1951.

Dr. Benedict is to be congratulated on his unusual ability to concentrate so much information in so few words and so attractively. The subject matter is presented under the headings of Newer Instruments, Techniques, Indications and Contraindications, Preparation of the Patient, the Normal and Abnormal, Diagnostic Criteria, Treatment, and Prognosis, with a good working bibliography. There are brief, pertinent case reports and many interesting additional topics, as for example "Emotional Disorders of Swallowing." Among the 373 pages are 108 beautiful color plates and 128 black and white figures.

Dr. Edward D. Churchill in his foreword aptly states: "Dr. Benedict has molded Endoscopy into a productive and significant area of medicine—this book will stand as a distinguished contribution to medicine in which technical skills are combined with a broad interest and understanding of the patient and his disease."

Every doctor should have the pleasure of a copy of this delightful book on the relatively new subject of endoscopy.

[4]Skull Fractures and Brain Injuries

Harry E. Mock, M. D., Consulting Surgeon, St. Luke's Hospital, Chicago. Cloth, 789 pages. $13.50. Baltimore, Williams and Wilkins Company, 1950.

In the first edition of his book, Dr. Mock has approached the problem of skull and brain injuries from the standpoint of a general surgeon who has seen a vast number of such injuries and has made a hobby of their study. The author points out that these injuries for the most part are seen and treated by general practitioners and general surgeons, and he has written the text with their problems in mind.

All aspects of head injuries are covered thoroughly and illustrated with numerous examples taken from the 7,143 case records which form the basis of the text. The author's

[1]*Hubert Seale, M. D., Abilene.*
[2]*Lang F. Holland, M. D., Austin.*
[3]*Cecil O. Patterson, M. D., Dallas.*
[4]*Ralph A. Munslow, M. D., San Antonio.*

style is informal, and he draws generously upon the opinions of authorities in discussions of controversial questions, such as the use of dehydration following head injury.

The only criticism of the text might be its length. The illustrations are well chosen, and the statistical material presented is voluminous. The book is to be recommended to all physicians seeing any number of head injuries.

[5]Blood Groups in Man

R. R. Race, Ph. D. (Cantab.), M.R.C.S. (England), Director, Medical Research Council Blood Group Research Unit, Lister Institute, London; and Ruth Sanger, Ph. D. (London), B. Sc. (Sydney), Medical Research Council Blood Group Research Unit, Lister Institute, London. Cloth, 277 pages. $6.50. Springfield, Ill., Charles C. Thomas, 1950.

The use of blood typing with regard to inheritance is comprehensively covered by two authorities. The text is invaluable to pathologists engaged in legal work concerning paternity cases. The material is up to date and the bibliography excellent. Technical procedures are brief, but the book is not intended for technicians. Formulas and equations are above the knowledge of most pathologists, but the derived tables are good. This is a good follow-up to Wiener's "Blood Groups and Transfusions," 1943. Subsequent volumes will deal with ethnologic and clinical aspects of this subject.

[6]Treatment of the Nephrotic Syndrome

Lee E. Farr, M. D., Chairman, Medical Department, Brookhaven National Laboratory; Physician-in-Chief, Brookhaven National Laboratory Hospital, Upton, Long Island, N. Y. Lexide, 61 pages. $1.75. Springfield, Ill., Charles C. Thomas, 1951.

This monograph presents in a concise manner, which is easily read, the theoretical and practical aspects of the treatment of the nephrotic syndrome. It relegates the hormone preparations to a minor role, but emphasizes that ACTH and cortisone are still in the experimental stage. The only readily apparent shortcoming is the lack of criticism on the resinous products used to prevent sodium absorption. Otherwise the book is well written and should be useful to the general practitioner.

[7]Natural Childbirth

Frederick W. Goodrich, Jr. Cloth, 169 pages. $2.95. New York, Prentice-Hall, 1950.

A better name for this book would have been "A Manual for Expectant Parents." It answers any question that would enter the mind of a pregnant woman or her husband, and is presented in a readable manner, easy-to-read print, and simple language.

The anatomy and physiology of the reproductive organs are described, with illustrations that are excellent. The sensations and reactions of the pregnant mother in each trimester of pregnancy are described in separate chapters.

The background and explanation of natural childbirth as well as exercises are aptly presented. After reading the chapter on relaxation, one is almost stimulated to try out "having a baby." So that a patient may understand, the basic facts of the physiology of labor are explained—every woman wants to know them. False labor is explained. The first, second, and third stages of labor are made very clear with excellent illustrations. Induction of labor and episiotomy are described.

The necessity of pain relief is mentioned in those patients unable to relax "completely." The patient should "experience in labor no more discomfort than you are willing to accept, and if you are unable to be comfortable by the methods outlined previously, then you should have as much medication as you need to be comfortable."

The postpartum period is described as it takes place from the time the patient leaves the delivery room until she goes home. The diet, hygiene, and the patient's emotional adjustment are discussed.

If more prenatal patients had the opportunity of reading this book, many precious minutes of the physician's time could be saved. In the mind of the reviewer, this book is the best on natural childbirth and is highly recommended for expectant parents.

[8]Electroencephalography in Clinical Practice

Robert S. Schwab, M. D., Director of the Brain Wave Laboratory, Massachusetts General Hospital, and Associate in Neurology, Harvard Medical School. Cloth, 187 pages. $6.50. Philadelphia, W. B. Saunders Company, 1951.

Starting with a historical summary, this book of less than 200 pages succeeds in giving a lucid clinical survey of the field of electroencephalography. Step by step it discusses the basic electrophysiologic phenomena, the technique of recording, the criteria of normal and abnormal tracings, the salient findings in epilepsy and various other neurologic conditions, the abnormalities seen in psychiatric disorders, and, finally, the set-up of an electroencephalographic laboratory, including training of personnel. Using clear diagrams and excerpts from tracings to illustrate the presentation, the author has given what, in the opinion of the reviewer, is a concise yet comprehensive treatise. It is highly recommended to those who wish to acquaint themselves with this relatively new field of clinical medicine.

[9]Methods in Medicine

George R. Herrmann, M. D., Ph. D., Professor of Medicine, University of Texas Medical Branch at Galveston; Director of the Cardiovascular Service and Heart Station, University of Texas Hospitals. Second edition. Cloth, 479 pages. $7.50. St. Louis, C. V. Mosby Company, 1950.

The purpose of this manual is to orient and guide in the approach to clinical problems and their solution. The aim is well achieved as is not unexpected, considering the authorship through whom is reflected the teaching of Professor Henry A. Christian and Dr. George Dock, to whom this second edition is dedicated in commemoration of the latter's ninetieth birthday anniversary.

Methods of history taking and physical examination are detailed in outline form. A large section is devoted to all the usual clinical laboratory procedures. Most valuable is the part given to procedures and studies indicated in various clinical disorders. Applicable historical detail, pertinent physical signs, and indicated laboratory procedures are enumerated in easily accessible form for each of the large groups of clinical disorders. Sections on therapeutic and dietetic methods complete the manual.

To the intern, the resident, and the practitioner this manual is recommended as the standard guide of procedure in the approach to clinical problems. As with the previous edition of twenty-five years ago, advances can be expected to change therapeutic procedures, but the methods of solving clinical problems through the intuitive correlation of historical data, physical signs, and indicated basic laboratory procedure results, all so well elucidated here, likely will not be improved upon.

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[5]*Philip T. Flynn, M. D., Austin.*
[6]*H. J. Childress, M. D., Gilmer.*
[7]*Georgia Legett, M. D., Austin.*
[8]*Stephen Weisz, M. D., Dallas.*
[9]*Victor E. Schulze, M. D., San Angelo.*

ORGANIZATION SECTION

BOARD OF TRUSTEES OF ASSOCIATION

The men who form the Board of Trustees of the Texas Medical Association are noted for their planning ability as well as their achievements in medicine. Biographical sketches of these five men are as follows:

Dr. Merton M. Minter, who has been a member of the Board of Trustees since 1946, served as vice-chairman of the Board before his election as chairman in 1951.

A specialist in diagnosis and internal medicine, Dr. Minter has practiced in San Antonio since 1930. He was graduated from the University of Texas School of Medicine and was elected to Alpha Omega Alpha, the honorary medical fraternity. He became a diplomate of the American Board of Internal Medicine in 1940 and is a life member of the American College of Physicians. He is a member of the American Medical Association, the American Diabetic Association, the American Heart Association, and the Texas Academy of Medicine.

Dr. Minter served as president of the International Post Graduate Medical Assembly in 1950-1951, and co-chairman of the Committee on Public Relations of the Texas Medical Association when the committee was first formed in 1943. He was chairman until he became a member of the Board of Trustees. In 1948 he was chairman of the Section on Medicine of the Texas Medical Association. Formerly he was chairman of the Advisory Board on Hospital Construction in Texas.

Chairman of the department of medicine and member of the executive committee of Santa Rosa Hospital, Dr. Minter is a special consultant in internal medicine to the United States Air Force and to the Veterans Administration Hospital, Legion.

Dr. and Mrs. Minter are the parents of two sons.

A former county society president and a former district councilor, *Dr. E. A. Rowley* is serving his second term as Trustee of the Association. He formerly was secretary of the Board and now is vice-chairman.

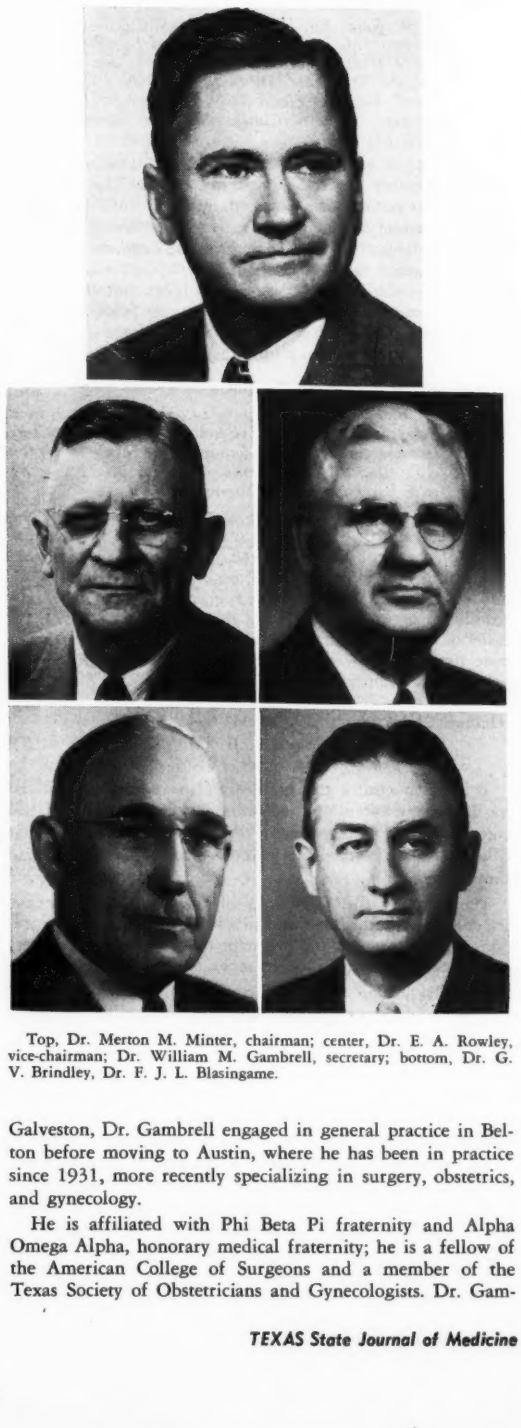
A graduate of Milwaukee Medical College, now Marquette University, Milwaukee, Wis., Dr. Rowley was born in Illinois, where he received his academic education. After graduation from medical school, Dr. Rowley interned at Milwaukee County Hospital, Wauwatosa, Wis., and practiced in Atoka, Okla., before serving in the U. S. Army Medical Corps in Texas and France and in the army of occupation in Germany during and after World War I. From 1919 until 1926 Dr. Rowley practiced at Strawn. He is now in general practice in Amarillo.

Dr. Rowley is a member of the American Academy of General Practice. He also holds membership in the American Medical Association, the state Association and the Potter County Medical Society, and has been president of the Potter and Palo Pinto Counties Medical Societies. He has served as councilor for the Third District, a position he relinquished when he became Trustee in 1946. He is a Mason and has interests in farming and ranching. The Rowleys have one daughter.

A familiar figure in medical circles, *Dr. William M. Gambrell* completed one challenging role as the President of the Texas Medical Association, and began another when he was elected for his first term as Trustee during the 1951 annual session. Dr. Gambrell is serving as secretary of the Trustees.

A graduate of the University of Texas Medical Branch, Galveston, Dr. Gambrell engaged in general practice in Belton before moving to Austin, where he has been in practice since 1931, more recently specializing in surgery, obstetrics, and gynecology.

He is affiliated with Phi Beta Pi fraternity and Alpha Omega Alpha, honorary medical fraternity; he is a fellow of the American College of Surgeons and a member of the Texas Society of Obstetricians and Gynecologists. Dr. Gam-



Top, Dr. Merton M. Minter, chairman; center, Dr. E. A. Rowley, vice-chairman; Dr. William M. Gambrell, secretary; bottom, Dr. G. V. Brindley, Dr. F. J. L. Blasingame.

brell served as president of the Bell County Medical Society, president of the Seventh District Medical Society, and president of the Travis County Medical Society; he served his county society several times in the House of Delegates and was councilor of the Seventh District before his election as President-Elect of the state Association in 1949. He is a member of the Baptist Church, a thirty-second degree Mason, and a member of Rotary Club. One of the Gambrells' three children is a physician.

A former president of the Association, *Dr. G. V. Brindley* has been prominent in the medical profession and in Association affairs for many years.

Dr. Brindley, who is a University of Texas Medical Branch graduate, is chief of the surgical service of the Scott and White Memorial Hospitals, Temple. He is professor of surgery of the University of Texas Postgraduate School of Medicine, Temple Division, and associate dean of the Division. In addition to positions in the Bell County Medical Society, he has held numerous offices in the Texas Medical Association including chairman of the Board of Councilors and chairman of the Section on Obstetrics and Gynecology.

Dr. Brindley is a member and immediate past president of the Southern Surgical Association and is now a member of the council of the association. He is a member and past president of the Texas Surgical Society, a member of the Southern Medical Association, a fellow of the American College of Surgeons and a member of its board of governors, and a member of the International Society of Surgery.

Other positions held by Dr. Brindley during his career have included president of the Alumni Association of the Medical Branch; lecturer in surgery at the Medical Branch; chairman of the executive committee of the Texas Division, American Cancer Society; and a member of the Board of Trustees of Mary Hardin-Baylor College. He is a noted speaker and author of scientific papers, and has won awards for various scientific exhibits. Dr. Brindley is a Shriner, Rotarian, and a member of the Baptist Church. His three sons are physicians.

The position of trustee is not new to *Dr. F. J. L. Blasingame,* Wharton, who has been on the Board of Trustees of the Association since 1947, has served since 1949 as a Trustee of the American Medical Association, and has served as chairman of the Board of Wharton County Junior College.

Dr. Blasingame was graduated from the University of Texas, receiving his doctor of medicine degree in 1932. He has served on the faculty of the Medical Branch in various capacities, at present being a lecturer in anatomy. One of the owners of the Rugeley and Blasingame Clinic Hospital in Wharton, Dr. Blasingame considers himself a general practitioner with special interest in surgery.

Since he became a member of the Association in 1938, Dr. Blasingame has represented his county society in the House of Delegates, served as councilor of the Eighth District, and has been chairman of the Section on Surgery. He is a fellow of the American College of Surgeons, a director of the Blue Cross hospital and Blue Shield medical services in Texas, past chairman of the Texas Physicians Committee, and member of Alpha Omega Alpha, honorary medical, and Phi Chi fraternities. He is a member of the Episcopal Church, the Masonic Order, Scottish Rite, and Shrine. The Blasingames have five children.

EXECUTIVE COUNCIL HIGH LIGHTS

Decisions and announcements of importance were made at the semiannual meeting of the Executive Council of the Texas Medical Association in Austin, September 2, at which the President, Dr. Allen T. Stewart, Lubbock, presided. Several councils and committees of the Association met September 1, and reports presented to the Executive Council in large measure resulted from these meetings.

American Medical Association Dues.—Upon resolution introduced by the delegates to the American Medical Association, the Executive Council agreed that Texas physicians who were eligible for membership in the A.M.A. for 1950 but who failed to pay $25 dues for that year should be considered delinquent as of September 1.

Pamphlet on Malpractice.—The Council on Medical Defense announced that Mr. Philip R. Overton, Austin, general attorney for the Association, is preparing a pamphlet on what constitutes malpractice and how it may be avoided for distribution to Texas physicians.

Annual Session Plans.—A recommendation from the Council on Scientific Work that the annual session in Houston in 1953 be held April 26-29 at the Shamrock Hotel was adopted. Announcement was made that the 1952 session in Dallas, to be held May 3-6, will be centered in the Adolphus and Baker Hotels, which will accept applications for rooms sent directly to them. Program plans for the Dallas meeting were outlined, and the Executive Council was asked to approve a method for luncheon ticket sales which it is hoped will be easier on all concerned and involve less financial risk for the Association. The Council agreed to back the procedure, which calls for purchase of luncheon tickets by each physician before he is allowed to register, with the provision that he can obtain a refund immediately thereafter or up to 6 p. m. of the day preceding the luncheon.

Indigent Medical Care Symposium.—The Council on Medical Economics reported close cooperation between the Texas Hospital Association, the Texas Association of Private Clinics and Hospitals, and the council in a study of indigent medical care. These three agencies will present a symposium on the subject at a meeting of the County Judges Association in November in Corpus Christi.

Postgraduate Courses by Telephone.—Approval was given to a plan for at least three hour-long postgraduate programs to be made available throughout the state by telephone. The plan, similar to a successful series in Indiana, was proposed by the Committee on Postgraduate Work for the benefit of county medical societies. The Board of Trustees was asked to help finance programs.

Grievances.—With the assistance of the Committee on Public Relations, San Antonio, Galveston, and Pampa are carrying on demonstration campaigns to inform the public of the availability of grievance committees and emergency telephone call services. If these campaigns appear to be successful, other cities will be invited to participate in similar efforts, the committee reported. The Committee on Public Relations also plans to assist in the implementation of the recently enacted law providing for the licensing of vocational nurses.

Rural Health Conference.—Members of the Committee on Rural Health announced their plan to sponsor a conference on rural health next spring, to which representatives from agricultural, insurance, hospital, medical, and other interested groups will be invited.

Civil Defense.—A program for educating members of the medical profession in the techniques and attitudes necessary for adequate civil defense is being developed by the Committee on Civil Defense, which reported that its teaching program is about ready for activation.

New Headquarters Building.—Progress in the construction of the new building to house the library and central offices of the Association was reported by Dr. Sam Key. Steel and concrete foundations and floors are up, and it is hoped the building will be ready for occupancy by March.

Auxiliary Gift.—Mrs. O. W. Robinson, Paris, President of the Woman's Auxiliary to the Texas Medical Association,

announced that the Auxiliary expects to return as a gift to the Association $5,000 from the funds made available for Auxiliary work by the Association.

General Practitioner's Award.—On behalf of the Association, Senator Walter Tynan, San Antonio, present a plaque and book to Dr. Leo J. Peters, Schulenburg, who was named by the House of Delegates as General Practitioner of Texas for 1951.

GENERAL PRACTITIONER OF TEXAS

The General Practitioner of Texas for 1951, Dr. Leo Joseph Peters, was presented a wall plaque signifying this honor during a meeting of the Executive Council of the Texas Medical Association in Austin on September 2. The presentation was made by Senator Walter Tynan, San Antonio, on behalf of the Association and the House of Delegates, which made the selection during the annual session earlier this year in Galveston.

Dr. Peters, who has practiced in Schulenburg since his graduation from medical school in 1909, has ministered to the sick from horseback and modern automobile with equal aplomb, and his acceptance of advancing methods of healing has been as prompt as his acceptance of newer means of transportation. For example, during his career in general practice, in which he is credited with delivering more babies than the present population of Schulenburg, he became proficient in radiology and bought the first x-ray machine between San Antonio and Houston.

The son of Joseph and Barbara (Vrana) Peters, Dr. Peters was born November 11, 1886, in Dubina, Fayette County. His parents came to this country from Moravia, and Dr. Peters speaks German and Czech, a useful accomplishment in the community he serves. After attending the local schools and St. Edward's College in Austin, Dr. Peters was graduated from the Schulenburg High School. Although he had had no advanced academic training, he entered the University of Texas Medical Department in Galveston with a class of eighty-seven, and was one of thirty-seven who received the doctor of medicine degree four years later. He returned to Schulenburg, where he has lived since, serving as local surgeon for the Southern Pacific Railroad. It was the next year, 1910, that he and Miss Alma Baumgarten, also of Schulenburg, were married. They have two children, Dr. Leo J. Peters, Jr., Orange, and Mrs. W. S. Shaller, Amarillo.

DR. LEO J. PETERS

Throughout his career Dr. Peters has been active in medical organizations. He is a member of the Colorado-Fayette Counties Medical Society, Texas Medical Association, American Medical Association, Radiological Society of North America, Texas Radiological Society, and National Tuberculosis Association. He is an emeritus member of the Texas Academy of General Practice. He was secretary of his county society for five years and has been a member of the House of Delegates of the state organization for a number of years. His interest in the objectives of the medical profession is manifested in positive fashion which frequently involves a long distance telephone call at dawn before his day's rounds begin. Since 1926 he has owned a drug store, but the practice of medicine is still his first concern.

Dr. Peters has found time for religious and civic work, being a member of the Methodist Church, Masonic Order, Scottish Rite, Knights Templar, Knights of Pythias, Woodmen of the World, Sons of Herman, Slavonic Benevolent Order, and Lions Club. In such spare moments as remain, he enjoys the hobby of photography.

As General Practitioner for Texas, Dr. Peters will be one of the nominees for the national award to be made by the American Medical Association during its clinical session in December.

Additional Committees Appointed

Several new appointments have been made by the President since the list of officers and committees of the Texas Medical Association was published in June.

A Blood Bank Committee consists of Drs. H. E. Whigham, McAllen, chairman; Thomas M. Oliver, Waco; Arthur Gleckler, Sherman; Clarence S. Mast, Midland; and William F. Benson, Brownwood.

One more member has been added to each of three committees: Committee on Medical History, Dr. W. E. Whigham, McAllen; Committee on Memorial Exercises, Dr. Evelyn Powers, Amarillo; Committee on Scientific Exhibits, Dr. Cecil O. Patterson, Dallas.

Dr. John L. Matthews, San Antonio, has been named to fill the vacancies on the Council on Medical Education and Hospitals and the Committee on Postgraduate Work created by the death of Dr. Conn L. Milburn, San Antonio, August 8.

Dr. W. S. Barcus, Fort Worth, has been appointed chairman of the American Medical Education Foundation for Texas.

Advisers to Texas Chapters of the Student American Medical Association include Drs. E. Sinks McLarty, Galveston; Jack G. Brannon, Houston; and J. Glenn Terry, Dallas.

The Advisory Board to the Texas Society of Medical Technologists includes Drs. J. M. Moore, San Antonio, chairman; S. W. Bohls, Austin; and Charles T. Ashworth, Fort Worth.

AMERICAN MEDICAL ASSOCIATION

SIMPLIFIED INSURANCE FORMS DEVELOPED

Simplified, short forms for the use of insurance companies in securing information from attending physicians have been developed by the Health and Accident Underwriters Conference in collaboration with the International Claim Association. They have been approved by the Council on Medical Service of the American Medical Association and the National Association of Insurance Commissioners.

Similar forms for requesting hospital information have been prepared and have been approved by the American Hospital Association.

COUNTY SOCIETIES

Bell County Society

August 1, 1951

(Reported by E. R. Veirs, Secretary)

Chromate Dermatitis of Railroad Employees Working on Diesel Locomotives—J. R. Winston and E. N. Walsh, Temple.
Intermedullary Nailing of Fractures of Femoral Shaft—R. A. Murray, Temple.

The above scientific program was presented at the meeting of the Bell County Medical Society, August 1 in Temple.

Applications for membership of James C. Moore and Dean Nichols, Temple, were accepted, as was the transfer from Smith County Medical Society of Henry Poetter, Temple.

Three motions passed at the meeting provided for approval of recent action of the committee on public health in reference to housing the Bell County Health Unit; an investigation by the committee on public health of the possibility of building a new home in Temple for the Health Unit; and the expression of appreciation from the society to the city manager and chamber of commerce for their efforts in securing temporary housing for the Health Unit.

E. O. Bradfield, Temple, the president, was authorized to appoint a committee on civil defense.

Colorado-Fayette Counties Society

June 26, 1951

Col. John M. Talbot, head of the department of radiation and biology of the School of Aviation Medicine at Randolph Field, was guest speaker at the June 26 meeting of the Colorado-Fayette Counties Medical Society in Eagle Lake.

Colonel Talbot spoke on the atomic bomb as applied to civil defense. Special guests for the meeting were members of the Civil Air Patrol, the mayor's civil defense committee, the county judge, and members of the press.

Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Society

July 17, 1951

(Reported by R. W. Laycock, Secretary)

Medical Treatment of Chronic Peptic Ulcer; Case Report—Walter Purviance, Pampa.
Cancers of Lung—E. E. Fair, Oklahoma City.
British Medicine—J. Victor Ellis, Amarillo.

A dinner meeting of twenty members and ten guests was held July 17 in Pampa by the Gray-Wheeler-Hansford-Hemphill-Lipscomb-Roberts-Ochiltree-Hutchinson-Carson Counties Medical Society. The program outlined was presented.

The president, H. M. Hamra, Borger, appointed a civil defense committee consisting of MacField McDaniel, R. W. Laycock, and J. R. Donaldson, all of Pampa.

Lamar County Society

July 12, 1951

(Reported by Thomas E. Hunt, Jr., Secretary)

Radiology—Fred Hargrove, Paris.

The Board of Trustees for the Lamar County Medical Society Blood Bank met with the society July 12 in Paris to elect trustees for the coming year. Trustees elected were Mr. Gilbert Cecil, Mr. Benton Fisher, Scott Hammond, J. A. Stephens, and M. A. Walker, all of Paris. C. E. Gilmore, retiring director, was extended a vote of thanks for work he and his trustees had done in organizing and directing the blood bank.

J. E. Armstrong and N. L. Barker reported on the recent meeting of the Fourteenth District Society.

August 2, 1951

(Reported by Thomas E. Hunt, Jr., Secretary)

Dental Photography—David C. Hayes, D.D.S., Paris.

The above scientific program was presented at the meeting of the Lamar County Medical Society held in Paris on August 2. Dr. Hayes showed equipment and photographs and pointed out how photography can be applied to both the dental and medical patient. B. F. Thielen, D.D.S., Paris, had charge of the program.

J. E. Armstrong and T. E. Hunt, Jr., reported on the Post Graduate Medical Assembly of South Texas, Houston. John R. Kelsey, Jr., was welcomed as a new member and the application of Fred Hargrove was approved.

Lubbock-Crosby Counties Society

August 7, 1951

(Reported by John B. Rountree, Jr., Secretary)

Malnutrition in Hospitalized Surgical Patient (motion picture).
Pronestyl in Ventricular Tachycardia (motion picture).

The Lubbock-Crosby Counties Medical Society met August 8 in Lubbock and the above program was presented.

Application for transfer of membership of Vern Rohorer was received and accepted. Allen T. Stewart reported regarding the problem of securing a full-time director for the City Health Unit. The establishment of a medical exchange bureau in Lubbock was discussed and a motion passed that arrangements for such a bureau, to be sponsored by the county society, be made by the public relations committee and submitted to the society at the next regular meeting.

F. B. Malone reported the request of the American Cancer Society that the medical society sponsor a cancer program October 2. The request was approved and referred to the program committee.

DISTRICT SOCIETIES

Fifth and Sixth Districts Society

July 6-7, 1951

More than 200 physicians attended the annual meeting of the Fifth and Sixth District Society held in Corpus Christi on July 6 and 7.

E. King Gill, Corpus Christi, president of the society, and George L. Gallaher, Harlingen, vice-president, alternated as presiding officers. Jerome Nast, Corpus Christi, president of Nueces County Medical Society, gave the welcome address.

Speakers on the scientific program included Philip Thorek, Chicago; Arthur Grollman, Dallas; A. C. Broders, Temple; William F. Mengert, Dallas; J. M. Robison, Houston; and William S. Sodeman, New Orleans. Allen T. Stewart, Lubbock, President of the Texas Medical Association, spoke on "The Doctor and Civilian Defense."

Visiting doctors and their wives were entertained by the Nueces County Medical Society at a dinner dance at Corpus Christi Country Club.

Twelfth District Society

July 10, 1951

(Reported by J. C. Terrell, Secretary)

Experiences with Use of Cortisone in Rheumatoid Arthritis—Neil D. Buie, Marlin.
New Treatment for Fractures of Neck of Humerus in Aged—Herbert E. Hipps, Waco.
Repair of Parotid Duct—Joseph M. Cox, Bryan.
Acute and Chronic Pancreatitis—Frank A. Selecman, Dallas.
Medical Treatment of Peptic Ulcer—A. C. Broders, Jr., Temple.
Intracranial Hemorrhage—James C. Walker, Temple.
Common Surgical Operations on Gallbladder and Pancreas—H. R. Dudgeon, Jr., Waco.
Neurosurgical Procedures for Relief of Intractable Pain in Malignancy—George Ehni, Houston.

The above scientific program was presented at the Twelfth District Medical Society meeting held July 10 in the Student's Memorial Building at College Station. Dr. Allen T. Stewart, Lubbock, President of the Texas Medical Association, was luncheon speaker.

AUXILIARY SECTION

ANNUAL REPORTS OF COUNTY AUXILIARIES

(EDITOR'S NOTE: This is a continuation from page 609, August, 1951, issue of the JOURNAL of the annual reports presented by county auxiliaries at the annual session of the Woman's Auxiliary to the State Medical Association of Texas in Galveston, April 29 and 30 and May 1 and 2, 1951.)

Nacogdoches County

The Nacogdoches County Auxiliary is composed of 15 members. Average attendance at the monthly business and social meeting is 9, and nine meetings are held annually.

Through contributions received at our annual silver tea, we will be able to furnish a room in the new wing of the City Memorial Hospital. We have contributed to both the Student Loan Fund and the Memorial Fund. The auxiliary donated a Christmas basket to the Junior Chamber of Commerce project. Our members have given time and effort to the Red Cross, Community Chest, March of Dimes, and the mobile x-ray tuberculosis unit.

MRS. WALTER B. ALLEN, Nacogdoches.

Navarro County

The Woman's Auxiliary to the Navarro County Medical Society was organized February 16, 1951, at Corsicana. State officers present for the meeting were Mrs. William M. Gambrell, Austin, President; Mrs. Joseph H. McCracken, Jr., Dallas, First Vice-President; and Mrs. John E. Talley, Waco, Council Woman for District 12. Nine women who qualified as charter members attended. At present we have 16 members.

The group meets the first Friday of each month. At the March 9 meeting officers were elected. On April 6 Mrs. Will Miller, Corsicana, reviewed John Flynn's book, "The Road Ahead."

MRS. C. L. GARY, JR., Corsicana.

Nueces County

The year for the Woman's Auxiliary to the Nueces County Medical Society began with the annual meeting of the Fifth and Sixth District Medical Societies in Corpus Christi on July 5 and 6. The auxiliary helped with registration of both the doctors and wives and planned entertainment for the wives. A luncheon was held at which Mrs. William M. Gambrell, President of the State Auxiliary, gave a few highlights of the American Medical Association annual session in San Francisco. Immediately after the luncheon the Sixth District Auxiliary met and elected Mrs. Troy Shafer of Harlingen, Council Woman. Mrs. Gambrell and the visiting auxiliary members were honored at a morning coffee at the home of Mrs. Franklin Yeager.

The auxiliary had five meetings this year. At the first was given a skit, the idea borrowed from the El Paso Auxiliary, giving the duties of each officer and committee chairman and introducing new members. The second meeting was a coffee to sell *Today's Health* and the *Bulletin* to members. The third was the annual Christmas party for doctors and wives. Dr. McIver Furman spoke on the new Clara Driscoll Children's Hospital at the fourth meeting, a luncheon. The fifth, a luncheon also, was devoted to annual reports and installation of officers.

We placed *Today's Health* in all the schools and in all hospitals and charity clinics, subscribed $25 to the Library Fund and $5 each to the Student Loan Fund and the Memorial Fund, and collected vitamin samples from the doctors' wives and placed them in charity clinics.

Physical examinations reported were 311. The auxiliary obtained 78 subscriptions to *Today's Health* and 19 subscriptions to the *Bulletin*.

MRS. L. W. O. JANSSEN, Corpus Christi.

Orange County

The Orange County Auxiliary is organized to have ten meetings each year. These are arranged so that the business, study, and social aspects are adequately met. Total membership is 14, with 3 new members and 5 honorary members.

"She Who Dares to Lead Must Never Cease to Learn" has been the spur of our educational program for 1950-1951. Aside from the business and social aspect of our monthly meetings, outstanding members in our community and organization have spoken on "The Church in Community Health Program," "Health in Our Community," "Blood Donors," "The Constitution of Texas Medical Auxiliary," "The Voluntary Way Is the American Way," and "The A.M.A. and Its Interest in Health."

Capitol Clinic reports have been brought before the auxiliary when possible.

The auxiliary sponsored a health program for a church women's organization with two of our Auxiliary members, Mrs. L. J. Peters and Mrs. C. M. Covington, as speakers, and brought reports on health and medical matters to clubs and other groups in Orange. Auxiliary members helped further the building of a nursing home for the aged in Orange County. Auxiliary members have been requested to be active in clubs in our city and county.

The State President of the Auxiliary, Mrs. William M. Gambrell, spoke to District Auxiliary members and officers of other organizations in Orange. Clippings from local papers pertaining to medical matters were sent to State Medical Associations headquarters. Monthly meetings were reported to local and other papers and some reports were sent to the JOURNAL.

A seated tea was held for key people in civic, church, and school groups to hear Mrs. William M. Gambrell, Austin, the State Auxiliary President, speak. Informal talks on issues of a health nature were made before interested groups. The auxiliary was represented in Red Cross volunteer service.

Physical examinations numbered 17 doctors, 18 wives, 18 children, and 3 maids. Twenty subscriptions to *Today's Health* and 2 subscriptions to the *Bulletin* were sold. The auxiliary contributed to the Memorial and Student Loan funds.

MRS. C. M. COVINGTON, Orange.

Officers of the Woman's Auxiliary to the Texas Medical Association: President, Mrs. O. W. Robinson, Paris; President-Elect, Mrs. Robert F. Thompson, El Paso; First Vice-President (Organization), Mrs. V. M. Longmire, Temple; Second Vice-President (Physical Examinations), Mrs. John H. Wootters, Houston; Third Vice-President (Today's Health), Mrs. R. T. Travis, Jacksonville; Fourth Vice-President (Program), Mrs. Cecil O. Patterson, Dallas; Recording Secretary, Mrs. E. W. Coyle, San Antonio; Treasurer, Mrs. John D. Gleckler, Denison; Corresponding Secretary, Mrs. Clarence E. Gilmore, Paris; Publicity Secretary, Mrs. A. H. Neighbors, Sr., Austin; Parliamentarian, Mrs. T. Herbert Thomason, Fort Worth.

Potter County

The Potter County Auxiliary meets the second Tuesday of the month for a luncheon or coffee. Our auxiliary consists of 75 paid members for the year.

This year a constitution was adopted, an accomplishment of which the members are pleased. The project of the year was establishing a "linen chest" at the Preventorium. Members have been active in the various drives, such as the Red Cross, Tuberculosis, Cancer, and the Blood Bank. In November, the doctors were honored with Doctor's Day. This auxiliary donated to the Library, Student Loan, and Memorial funds.

MRS. KENNETH R. FLAMM, Amarillo.

Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties

In February, 1950, on Dr. Jim Camp Day in Pecos, Mrs. Robert F. Thompson and Mrs. George Turner of El Paso organized the Reeves-Ward-Winkler-Loving-Culberson-Hudspeth Counties Auxiliary. Eight women were present. Friendship among the doctors' wives and families has been stressed at several meetings.

We have dinner with the men each month and hold separate meetings after dinner.

Soon after the auxiliary was organized a speaker on socialized medicine was furnished for a meeting of the Business and Professional Women's Club. Doctors, dentists, and their wives were invited, and a number attended.

In September a luncheon for auxiliary members was given in Pecos. In October the executive board made out a program for the year and wrote a constitution, which were adopted and typed for our respective towns. At our next meeting in Monahans, Mrs. Paul Kunstadt, a former teacher in Austria, entertained us with a dinner at her house; she told us about socialized medicine in her country. When we met in Kermit, Mrs. Vest of Wink gave an interesting talk about her recent visit to England and socialized medicine there. Mr. Dan Peyton, manager of the Community Public Service, reviewed "The Road Ahead" at a meeting in Pecos.

At the last meeting the Pecos ladies had a Valentine dinner. We are looking forward to a visit from our State President, Mrs. William M. Gambrell, Austin, in March.

MRS. HAROLD LINDLEY, Pecos.

Rusk and Panola Counties

The Woman's Auxiliary to the Rusk-Panola Counties Medical Society has 22 paid members who are 100 per cent subscribers to the *Bulletin*. We have nine meetings a year, of which two are social, one business, and six business and social combined. The two social meetings are Doctor's Day and a picnic the last meeting of the year. The one business meeting is for the election of officers. The other six meetings are dinner meetings with the doctors, after which the society and the auxiliary have separate meetings for business and programs.

One good program was a talk on compulsory health insurance given by one of our members. Another outstanding talk on the training and recruitment of nurses was given by Miss Mary Alice Hawkins, R. N., of the staff of Henderson Memorial Hospital.

We have tried to stress in particular the legislative program and physical examinations. There have been 38 physical examinations among doctors, wives, children, and servants. We have not kept an accurate check on the number of service hours given by members of this auxiliary but 120 is a rough estimate. Every member has given some time and work to various community projects such as Community Chest, Red Cross blood typing, tuberculosis drive and work with mobile x-ray unit, sale of Easter seals for crippled children, work with the Cancer Society, and the five-day crippled children's clinic held each year in Henderson.

We have two recruits for nurses' training. Contributions to the Memorial Fund and Student Loan Fund were made.

MRS. SAMUEL PERLMAN, Carthage.

Smith County

The Smith County Auxiliary has had an interesting and informative year—with a great deal of fun. An active group has worked hard to put over our program, "Community Health Education." Members have taken part in the discussion of health services available and those needed in our own community. In this program we have included the study of voluntary prepayment medical care plans, and the twelve point program of the American Medical Association for the advancement of medicine and public health.

Our project for the past two years has been to collect money to furnish a room in the new county hospital which is almost completed in Tyler. By collecting small change from members at each meeting, a memorial fund has been possible. Our new project this year has been to assist in any way we can with the new blood bank in Tyler.

We have been called on by the Red Cross and have made curtains to help furnish our new physiotherapy center. We maintained booths and placed hearts in the suburban stores of Tyler for contributions for the Texas Heart Association.

Already we have had a full year but with three months to go we can accomplish much more. Each meeting has been followed by a hot cup of coffee and a good "gabfest."

MRS. J. W. BIRDWELL, Tyler.

Tarrant County

Accepting the challenge given by Mrs. William M. Gambrell at the State convention last year that "He who dares to lead must never cease to learn" as our theme for the year, the Woman's Auxiliary to the Tarrant County Medical Society has campaigned continually these past few months to educate not only our own members but our friends, neighbors, and the general public.

The work of the public relations and the legislative committees was so closely related that they worked together on most matters. At each regular meeting of the auxiliary the chairman gave reports and instructions to the members and encouraged them to vote by having the Tarrant County Tax Assessor and Collector at the legislative meeting to issue poll tax receipts; 58 additional taxes were paid. Senator Keith Kelly spoke on "How to Be an Effective Citizen" and discussed current legislation pending in Austin.

A study group for the auxiliary members was formed in February so that we might become better informed on socialism as well as current medical legislation.

One hundred different groups were represented at the public relations coffee in November. Among these were presidents of the preschool groups, elementary and high school Parent-Teacher Associations, study clubs, and civic organizations. Mr. Howard Fender, an attorney and an alumnus of Harding College Freedom Forum, gave the forum's flannel board presentation of "This Is Our Problem," a discussion on socialism in the United States today and the grave threat of socialized medicine. After his talk, literature was distributed.

As a follow-up to this coffee, ninety kits, "What Can Women Do?" from the education program of Harding College were sent to the presidents of the organizations attending. These kits contain material and a plan of action that can be followed by organizations in their fight against socialism.

The auxiliary members have scheduled ten talks before other groups by prominent citizens who talked on socialism in general. Six were made by the members themselves, one of which was to a group of Negro women. The motion pictures "Make Mine Freedom" and "Meet King Joe" were followed by a talk on socialism. These women were so impressed that they are planning to have the auxiliary return and talk before a larger group in their church.

The public relations and legislative committees have been outstanding. A large number of members are informing themselves and are constantly discussing with people the problems of socialism.

In an auxiliary as large as ours, with 271 members, it is difficult to get an accurate statistical report on all activities of the members. Thirty-two new members have been added this year; 15 were former members returning. Nearly two-thirds of the auxiliary members had physical examinations this year. One nurse was recruited for a local hospital through the efforts of the nursing committee. Many members are active in Red Cross work. Two women have taken the refresher instructor's course in home nursing and are now teaching classes.

A panel discussion by six local doctors on the public health facilities available in Fort Worth provided an interesting and informative health program this year. The maternal health center; child guidance, heart, tumor, pediatrics, and cerebral palsy clinics; orthopedic treatment available at City-Council Hospital; and the emergency call system of the general practitioners in the Tarrant County Medical Society were discussed.

In September, Dr. May Owen, an honorary member of the auxiliary, entertained Tarrant County Medical Society members and wives with a buffet dinner. On February 17 the auxiliary had a dinner dance for the doctors. The regular meeting in March will be a guest day style show given by one of the local department stores. We plan to have our annual picnic during the summer for the doctors.

MRS. MAL RUMPH, Fort Worth.

Taylor-Jones Counties

The Taylor-Jones Counties Auxiliary consists of 64 paid members, 1 honorary, and 1 associate. Regular monthly meetings are held with an excellent attendance. The two social meetings were the Christmas dinner-dance and picnic. Members of the medical society attend these functions.

Mrs. William M. Gambrell, Austin, State President, was honor guest at the October meeting.

Seventeen new members were guests of honor at the November meeting.

The greatest effort has been made to encourage more active participation in legislative activities and better public relations. The legislative chairman informed members of pending bills.

There were 180 physical examinations, and the *Today's Health* chairman gave a program on health. The auxiliary contributed $5 each to the Memorial, Library, and Student Loan Funds, and to the Red Cross, Tuberculosis Christmas seals, March of Dimes, and Sunshine Nursery, and $10 to Boy's Ranch. Forty books were given to the student nurses library at Hendrick Hospital. Individual service is given liberally in many other civic projects and philanthropies.

MRS. DONALD MCDONALD, Abilene.

Titus County

The 7 members and 3 members-at-large of Titus County Auxiliary meet every three months with the medical society of Titus and two adjacent counties to hear the guest speakers who present the society program.

MRS. WILLIAM A. TAYLOR, Mount Pleasant.

Tom Green-Eight County

The fifty members of the Tom Green-Eight County Auxiliary are proud of their accomplishments for the past year. We feel that real progress has been made in combating socialized medicine at the grass roots. During this year medical care has been made available to the indigent ill of Tom Green County for the first time. This accomplishment was made possible by the contribution of free services by members of the local medical society, greatly reduced rates at local hospitals, medicines at slightly more than cost from local druggists, and funds from the city and county governments to meet the necessary expenses. The organizational work was done by a citizen's committee, on which many members of our group served. With the volunteering of the auxiliary to staff out-patient clinics, their early establishment has been practically assured.

We have had nine meetings with an excellent attendance record. Five new members have been added. Our group has given more than 450 hours of volunteer work to various community activities—predominantly those dealing with health. Our members have worked with the tuberculosis society, staffing a booth and providing 50 workers during the Christmas seal sale drive. We expect to help in staffing the mass tuberculosis x-ray project as we have in past years. The majority of our members worked with the Poliomyelitis Foundation during its Mother's March for funds. The Community Chest drive found practically all of our members participating. Active assistance has been given the American Cancer Society, Planned Parenthood Society, Baby Clinic, Red Cross, County Memorial Library, Helen Kendall Art Museum, and City Federation style show. Our auxiliary is represented by at least one member on the board of directors of every youth, character building, and welfare organization in our area.

Our special project of assisting the local child welfare unit was continued this year. Personal kits for children placed in foster homes were supplied, and we provided the entire Christmas for 23 children, including clothing, toys, fruit, and candy.

Members of the auxiliary called persons listed in the telephone directory during the fall election and urged them to vote. Presidents of all federated clubs as our guests at one meeting were taken on a tour of hospitals and told of our interest in voluntary health insurance.

Local doctors' wives were invited to a coffee early this year. In October we entertained our State President, Mrs. William M. Gambrell, Austin, at a luncheon meeting. Doctor's Day was celebrated in November with a joint meeting and social hour with the medical society. A Christmas luncheon was held. Other programs and meetings included health talks, a style show, and a picnic for doctors and their wives.

MRS. L. R. HERSHBERGER, San Angelo.

Travis County

The Woman's Auxiliary to the Travis County Medical Society began the year with a coffee at the Austin Country Club honoring the State President, Mrs. William M. Gambrell, Austin, and her Executive Board. A number of our members attended the State Board meeting after the coffee. The October meeting was a luncheon honoring our president. Mrs. Gambrell gave a stimulating talk, centering on her theme for the year, "She Who Dares to Lead Must Never Cease to Learn." She also emphasized our responsibility as doctors' wives in our respective communities.

In November we were pleased to have Dr. William M. Gambrell, President of the State Medical Association, as guest speaker. He gave an informative address on compulsory health insurance and socialized medicine.

The philanthropic committee was in charge of our December meeting and gave an outline of its work. Individual Christmas gifts were purchased for women without friends or relatives who were living in an old ladies' home. Money was given to Child and Family Service, to be used for the happiness of a needy family at Yuletide.

During the year we had two social meetings and guests were invited. One was a style show luncheon and the other a coffee. A talk and demonstration also was given on flower arrangements.

Our legislative chairman was active and encouraged members to send communications regarding current medical legislation to their legislators.

The Tuberculosis Sanatorium committee helped with the tea which each year provides money for necessary articles for the Sanatorium which could not be purchased otherwise. They also made frequent visits to the Sanatorium, helping in any way necessary.

The Brackenridge Hospital committee has prepared for microfilming the hospital's medical records for the past ten years. Almost 30 members are giving their time each week to complete this tremendous undertaking.

Our health education committee called all doctors' wives by telephone, urging each one to have a medical check-up if she had not previously done so. The nurse recruitment committee worked in connection with Brackenridge Hospital, since the hospital had a paid worker who visited all high schools, showing motion pictures and giving lectures to interest girls in nursing. A number were recruited in this manner.

Believing that community service is one of the best ways to create good will and to demonstrate to the public the willingness of the doctors and their wives to participate in community ventures, the auxiliary stressed this phase of its work the past year. We began by working on the diabetes drive. Every doctor in the city was given a test kit and information instructing him to give tests to patients desiring the free-test run. Many patients took advantage of this opportunity.

In the March of Dimes drive, the auxiliary staffed all booths at key points throughout the city for a full day. The heart drive followed; more than 200 plastic hearts were placed in all important business places in the city, all hospitals, state offices, and outlying shopping centers. These hearts were checked after two weeks and collected at the end of February. The medical auxiliary was well represented in the Community Chest drive. Many worked on solicitations and our president served as co-chairman in the woman's division. Women who gave of their scant leisure time for these various community projects also were doing public relations work in the many other organizations of the city.

Contributions to Auxiliary, civic, and private philanthropies totaled $266.

MRS. SANDI ESQUIVEL, Austin.

Victoria-Calhoun-Goliad Counties

The Victoria-Calhoun-Goliad Counties Auxiliary is composed of 22 members. Since we are only one year old, we are happy that our membership is 100 per cent for doctors' wives. However, five widows of physicians who are eligible for membership are not as yet in our group.

We have regular meetings on the first Wednesday of each month October through May. Two of our meetings have been social: one, a guest day luncheon to hear one of our members, Dr. Eva Seger, speak on *Today's Health*, and the other, a coffee with invited guests from all of the organized clubs in Victoria to hear J. A. Vail, Houston, speak on "The Power of Choice." In October Dr. Andrew S. Tomb, president of the Texas Academy of General Practice and secretary of the Victoria-Calhoun-Goliad Counties Medical Society, spoke on "The Threat of Socialism." Mrs. William M. Gambrell, Austin, our State President, spoke in December on "The Challenges of an Auxiliary member." After the meeting she was entertained at a style show luncheon and in the afternoon at a seated tea. In February the Eighth District Council Woman, Mrs. F. J. L. Blasingame, Wharton, was our speaker. In observing Doctor's Day we sent each of the doctors in our medical society a red carnation.

Seventeen subscriptions to *Today's Health* and 12 subscriptions to the *Bulletin* have been obtained. Ten copies of "The Road Ahead" were ordered and distributed. We put one copy of *Today's Health* in each of the school libraries.

During the Cancer Crusade we sponsored the showing of several motion pictures to the high school and other lay groups. A total of 59 physical examinations have been reported, and contributions to the Memorial Fund, Student Loan Fund, and Library Fund have been made.

MRS. ALLAN C. SHIELDS, Victoria.

Walker-Madison-Trinity Counties

A meeting of the wives of members of the Walker-Madison-Trinity Counties Medical Society was held in Huntsville on March 1. Mrs. Mark H. Latimer, Houston, Eighth District Council Woman, discussed the possibility of organizing a woman's auxiliary.

After a general discussion the Woman's Auxiliary to the Walker-Madison-Trinity Counties Medical Society was formed. The purpose was stated to be to promote wholesome relations through social gatherings and to foster the doctor's cause in any way possible. Our first meeting of the doctors and their wives will be held in Trinity.

MRS. E. M. ADDISON, Huntsville.

Washington County

Of 28 paid members of the Washington County Medical Auxiliary 2 are members-at-large and 13 associate members. There has been a marked increase in the number of members attending meetings. We believe that this is due partially to having a social after our business meetings. Four of our meetings were dinner meetings, and the other four were held in the homes of members, with simple refreshments being served.

Our project for the year was to help our public library with books for the Children's Corner. Each member gave $1 toward the project. We also contributed to the Memorial Fund and the Student Loan Fund and locally to the March of Dimes. We also give subscriptions to *Today's Health* to the Public Library, Brenham High School, Pickard (Negro) High School, Central School, and Blinn Junior College.

For the first time in years we have had a yearbook with a calendar of meetings and programs planned in advance. We also stressed physical examinations and had a total of 52, which included members, associate members, and families. We are still working toward 100 per cent.

We sponsored a motion picture on nurse training that was shown to the senior high school girls and to the girls at Blinn Junior College who were interested in nursing as a career. This year one recruit entered nursing school and another is taking courses which will qualify her to enter nursing school this year.

Eight of our members worked sixteen hours at the chest x-ray unit in our county. More will be called on to give their time to the Red Cross drive. One of our members is the executive secretary of the Washington County Chapter

of the Red Cross, and another member is chairman of the residential collections committee for the Red Cross drive.

Election of officers was held at our January meeting and installation will be in April. In March we will have a guest luncheon with our State President, Mrs. William M. Gambrell, Austin, as honored guest. Our year will end in May with the annual picnic for our husbands.

MRS. W. F. HASSKARL, JR., Brenham.

Wharton-Jackson-Matagorda-Fort Bend Counties

For the past year we have had 6 new members, making the total members to date 30 with 1 honorary member.

During the year we had one social meeting, three business meetings, five social and business meetings, four executive board meetings, four outside speakers, two health motion pictures, and four health talks.

Our auxiliary entertained Mrs. William M. Gambrell, Austin, our State President, with a seated coffee at which she made an interesting and informative speech. Representatives from the Parent-Teacher Association, Chamber of Commerce, Lions Club, Rotary Club, Red Cross, and the two local papers were present.

For our Doctor's Day we had a Christmas party.

We have discussed having a radio program and plan to get this program started next year. Our public relation and legislation officers have taken a great interest in their work.

In our organization there have been 8 subscriptions for *Today's Health,* and 3 members take the *Bulletin.* Most of the members reported that they and their families had physical examinations.

Our auxiliary is interested in nurse recruitment. Each year we offer a $50 scholarship for a nurses technician at the Wharton County Junior College. We contributed $5 to each of the following: Memorial Fund, Library Fund, and Student Loan Fund.

MRS. HAROLD NORTHINGTON, Wharton.

Wichita County

The Wichita County Medical Auxiliary was organized in 1926. The object of this organization is mostly social with some philanthropic and educational efforts. Our definite work is to cooperate and help with aid to the Tuberculosis Hospital at our County Farm.

This year our able chairman of the chest and tuberculosis committee, Mrs. J. A. Johnson, has spent much time and effort at the hospital. She has furnished the patients with magazines, fruit, flowers, puzzles, pajamas, and loafer sox.

As to our civic and humanitarian efforts, 4 members are putting in long hours at our newly organized Cancer Clinic, 3 are serving with the canteen at Sheppard Air Force Base, and 18 have taken charge of distributing and caring for the plastic hearts in Wichita Falls during February. Many members served during the March of Dimes and Community Chest drive, and many are to help on the Red Cross drive. Also, 2 members put in practically full time at Red Cross headquarters.

On September 20 the auxiliary entertained the wives of doctors attending the North Texas-Southern Oklahoma Fall Clinical Conference in Wichita Falls. That afternoon we sponsored a lecture open to the public by Dr. Frank Adair on "Early Cancer."

Our calendar this year included a guest day tea February 13 attended by 200 and a Christmas dance. On April 10 our health program is to include a talk by Dr. Bailey Collins and a motion picture on cancer.

MRS. R. L. DAILY, Wichita Falls.

Williamson County

Thirteen members of Williamson County Auxiliary have met during the year. Included in their projects have been cash contributions of $35 to the Williamson County Cerebral Palsy Clinic and $6.50 each to the Memorial, Library, and Student Loan Funds.

MRS. W. R. SWANSON, Taylor.

AUXILIARY NEWS

Angelina County Auxiliary

The Woman's Auxiliary to the Angelina County Medical Society observed Doctor's Day on May 29 in Lufkin with a covered dish supper honoring husbands of the members. Hostesses were Mrs. L. T. Tinkle and Mrs. Bernard Hyman. Twenty-three persons attended.

Kerr-Kendall-Gillespie-Bandera Counties Auxiliary

Doctor's Day was celebrated by members of Kerr-Kendall-Gillespie-Bandera Counties Auxiliary June 3 when they honored their husbands at a barbecue dinner at the home of Dr. and Mrs. Duan Packard, Kerrville. Hostesses with Mrs. Packard were Mrs. David McCullough and Mrs. Roger Stevenson.

Fifth and Sixth Districts Auxiliary

A business meeting, a luncheon style show, and a dinner dance were among the activities of the Woman's Auxiliary to the Fifth and Sixth Districts Medical Society held July 6 and 7 in Corpus Christi.

Mrs. Troy A. Shafer, Harlingen, district council woman, presided at the business meeting. Mrs. O. W. Robinson, Paris, President of the Woman's Auxiliary to the Texas Medical Association, was honored at a coffee at the home of Mrs. Y. C. Smith with members of the Nueces County Auxiliary as hostesses. The hostesses included Mrs. F. F. Rogers as chairman and Mesdames Jerome Nast, A. K. Rodholm, Clarence N. Meador, M. J. Perkins, Saul Grossman, and Hugh A. Kennedy, all of Corpus Christi.

Guests and local members of the Auxiliary were models for the style show of vacation and fall travel fashions presented July 6. Mrs. Robert Swearingen was commentator; Mrs. J. R. Riley, pianist; and the style show committee was composed of Mrs. E. King Gill, chairman; Mesdames O. S. Koepsel, J. L. Barnard, John Sloan, L. C. Arnim, and Kleberg Eckhardt, all of Corpus Christi. Models included Mesdames John C. Kuppinger, Harlingen; J. H. Strickland, Alice; E. W. Grief, Kingsville; Young S. Jenkins, Taft; Eckhardt, and Alfred L. Lane, Corpus Christi.

Twelfth District Auxiliary

The Woman's Auxiliary to the Twelfth District Medical Society met July 10 in College Station in conjunction with the district society meeting. Mrs. S. C. Richardson, Bryan, gave the invocation; Mrs. R. M. Searcy, Bryan, welcomed the guests; and Mrs. L. R. Talley, Temple, responded. A book review on "Southern Exposure" was presented by Mrs. Henderson Shuffler, College Station.

Fourteenth District Auxiliary

During the meeting of the Fourteenth District Medical Society in McKinney on June 12, members of the district auxiliary met at the McKinney Country Club. Entertainment consisted of a coffee in the morning; a joint luncheon with the doctors; bridge, canasta, and golf in the afternoon; and supper and dancing at night. Mrs. John Hooper was chairman of the local group who planned the day's activities. She was assisted by Mesdames Duncan Alexander, Glenn Mitchell, Charley Wysong, J. C. Erwin, Jr., B. K. Lovell, and Robert P. Haynes.

DEATHS

J. J. CAPPLEMAN

Dr. James Jacob Cappleman, Honey Grove, Texas, died in a Dallas hospital June 9, 1951.

Born near Windom, June 17, 1877, Dr. Cappleman was the son of William P. and Holly Ann Cappleman. Receiving his preliminary education at Baylor University, Waco, he was graduated from Tulane University in 1901 and practiced for two years at Wynnewood, Okla. In 1903

DR. J. J. CAPPLEMAN

Dr. Cappleman moved to Honey Grove, where he practiced until his death.

A member of the American Medical Association and the Texas Medical Association through Fannin County Medical Society, Dr. Cappleman was a member of the Baptist Church and the Woodmen of the World, being local physician for the latter organization for a number of years, and served on the school board for twenty-five years. He also served for a long period as city physician.

On December 22, 1901, in Ravenna, he married Miss Mary Cornelia Newton, who preceded him in death on October 20, 1950. Dr. Cappleman is survived by four children, Lester J. Cappleman, Dallas; Dr. W. P. Cappleman, Temple; E. N. Cappleman, Lamarque; and Mrs. C. D. Benson, Detroit, Mich.; a brother, Everett Cappleman, Bonham; two sisters, Mrs. Wylie Scarborough, Windom, and Mrs. William S. Fry, Irving; and nine grandchildren.

J. W. EMBREE

Dr. John Wilhoit Embree, Dallas, Texas, died July 26, 1951, in a Dallas hospital from a cerebral hemorrhage.

The son of a Texas pioneer doctor who fought Comanche Indians in Bell County, Dr. John Wilhoit Embree, Sr., and Tennessee (Kaye) Embree, Dr. Embree was born March 7, 1877, in Belton. Attending Belton Male Academy, from which he was graduated with a bachelor of arts degree, and the University of Texas, he was awarded a medical degree from New York University and Bellevue Hospital Medical College, New York, in 1899 and studied later in Vienna. He interned at Bellevue Hospital Medical College, practiced in Belton for seven years, and moved in 1906 to Dallas, where he maintained practice until his death.

Dr. Embree was a fellow of the American Medical Association and a member of the Texas Medical Association through Dallas County Medical Society; in 1950 he was one of the nominees for the general practitioner of the year for Dallas County. He was one of the first doctors in 1913 to volunteer to work in the Graduate Nurses Baby Camp, a temporary Red Cross tent hospital created because of the heavy death toll that year among babies of Dallas County; this camp was a forerunner of the Bradford Memorial Hospital for Babies, which he helped to organize.

A Mason, Dr. Embree was a steward of the First Methodist Church for nearly half a century. In the fall of 1948, as a memorial to his wife, who was Baptist, he donated $40,000 to the First Baptist Church toward a chapel and activities building. His wife, whom he married in 1906 in Beeville, had died in January of that year. Dr. Embree is survived by a sister, Mrs. W. W. Creswell, San Antonio.

J. H. MORRIS

Dr. Julian Hyman Morris, Dallas, Texas, died June 9, 1951, of heart failure and arteriosclerosis.

Dr. Morris was born August 7, 1880, in Macon, Ga., to Melvin and Dorothea Morris. He received his preliminary education in schools in Macon and Atlanta and was grad-

DR. J. H. MORRIS

uated from the University of Virginia Department of Medicine, Charlottesville, in 1901. Dr. Morris interned at Mothers' and Babies' Hospital, New York; served as house physician at Roanoke City Hospital, Roanoke, Va., for three months; and practiced one year in Macon. In 1903 he

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

began his practice in Dallas, specializing in urology. Dr. Morris received a doctor of dental surgery degree from the Baylor University College of Dentistry, Dallas, in 1912. He served as demonstrator in anatomy at the University of Virginia, professor of anatomy and physiology at Southwestern Medical School, Dallas, and professor of physiology at Baylor University College of Medicine, Dallas.

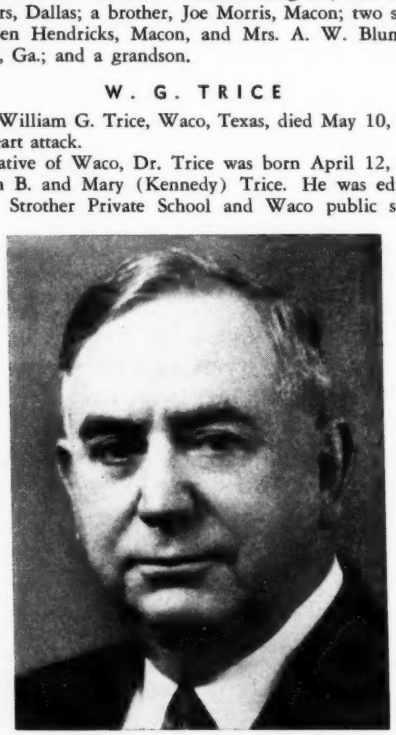
In 1949 Dr. Morris was elected to honorary membership in the Texas Medical Association through Dallas County Medical Society, of which he had been a member previously. He was also a member of the American Medical Association and a member of Temple Emanu-El, Dallas.

Dr. Morris is survived by his wife, the former Miss Gertrude Block, whom he married in Dallas on March 16, 1904. Other survivors include a daughter, Mrs. Alfred L. Myers, Dallas; a brother, Joe Morris, Macon; two sisters, Mrs. Ben Hendricks, Macon, and Mrs. A. W. Blumberg, Canton, Ga.; and a grandson.

W. G. TRICE

Dr. William G. Trice, Waco, Texas, died May 10, 1951, of a heart attack.

A native of Waco, Dr. Trice was born April 12, 1878, to Sion B. and Mary (Kennedy) Trice. He was educated in the Strother Private School and Waco public schools



DR. W. G. TRICE

before attending Vanderbilt University School of Medicine, Nashville, where he was graduated in 1900.

Dr. Trice began his private practice at Elk and practiced at Axtell before moving to Waco in 1926. For many years he was physician and surgeon for the Missouri-Kansas-Texas and the Cotton Belt railroads. During World War II, Dr. Trice served as a medical examiner for Selective Service. He did postgraduate work in Vienna and other European and American medical centers.

A member of the American Medical Association and the Texas Medical Association through McLennan County Medical Society during his professional life, Dr. Trice was a member of the old Waco Medical Society before the county society was organized. He was a Mason and a member of the Methodist Church. His hobbies of traveling and big game hunting took Dr. Trice to Alaska in 1929, French Indo-China in 1931, and Africa in 1936. On the trip in 1931 he went around the world.

In 1927 he married Miss Lottie Parmer of Waco, who survives.

A. O. CRAGWALL

Dr. A. O. Cragwall, Stephenville, Texas, died May 18, 1951, at his home of coronary thrombosis.

Born in Lebanon, Tenn., in 1876, Dr. Cragwall was the son of Mr. and Mrs. J. W. Cragwall, Lebanon. He attended Waverly College, Waverly, Tenn., and was graduated from Vanderbilt University School of Medicine in 1900. He practiced at Lingleville, Texas, one year before moving to Stephenville, where he practiced till his death.

A member of the Texas Medical Association for many years and of the American Medical Association, Dr. Cragwall was president of Erath-Hood-Somervell Counties Medical Society from 1940 through 1946. During his days at college, he was an athlete and named by Grantland Rice to the All-American football team his last year at Vanderbilt. He was a member of the Church of Christ, a Mason, a Shriner, a Rotarian, and served as Erath County Health Officer.

Dr. Cragwall is survived by his wife, the former Miss Isla Lee Compton, whom he married May 10, 1916, at Stephenville; one son, Albert Cragwall, Jr.; and a granddaughter, all of Stephenville, and a brother, Will Cragwall, and a sister, Miss Geneva Cragwall, Lebanon, Tenn.

G. E. KAHLER

Dr. Glenn E. Kahler, Post, Texas, died June 2, 1951, in a Galveston hospital.

Born September 9, 1911, at Cameron, Dr. Kahler was the son of E. J. and Althea Kahler. He was educated at Cameron High School, received his bachelor of science degree in 1932 from the University of Texas, Austin, and was graduated with honors in 1934 from the University

DR. GLENN E. KAHLER

of Texas School of Medicine, Galveston. After interning at John Sealy Hospital, Dr. Kahler served as resident surgeon at the Wichita Falls Clinic-Hospital and was assistant surgeon there for three years. In 1939 and 1940, Dr. Kahler was instructor in anatomy at the University of Texas School of Medicine.

On September 22, 1940, Dr. Kahler entered the armed forces and spent four years overseas. He was first in the

Pacific Theatre, where he established a station hospital on one of the first airstrips to be constructed in New Guinea in 1942. Dr. Kahler returned to the United States in 1943 to take the flight surgeon's course. During 1944 and 1945, he commanded an Air Evacuation Unit in the European Theatre. He was relieved of active duty in August, 1946.

Since that time Dr. Kahler had been engaged in private practice in Post, specializing in industrial surgery. Active in civic affairs, he served as president of Rotary Club, director of the Chamber of Commerce, District Boy Scout health executive, American Legion leader, member of the city commission, and mayor. Dr. Kahler was a deacon of the Presbyterian Church. He is credited with securing financial support for a modern and well-equipped hospital in Post.

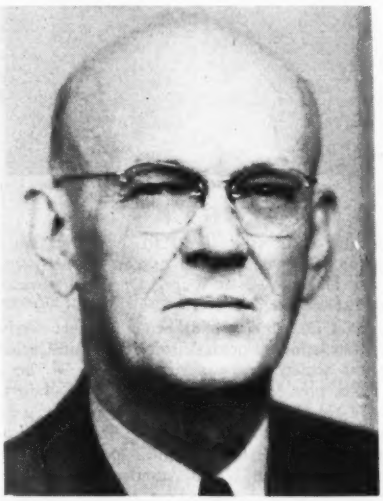
Dr. Kahler was a member of the American Medical Association and the Texas Medical Association through Wichita County and Lubbock-Crosby Counties Medical Societies. He was also a member of the American Academy of General Practice. At medical school Dr. Kahler served as president of his medical fraternity, Phi Beta Pi, and he held membership in Alpha Omega Alpha, honorary medical fraternity, and Phi Beta Kappa, honorary scholastic fraternity.

Dr. Kahler is survived by his wife, the former Miss Agnes Pickett, whom he married January 18, 1941, in San Antonio; two daughters, Katherine Kahler and Glenda Kahler, Post; his mother, Mrs. E. J. Kahler, Buckholts; and one brother, Gordon Kahler, Dallas.

M. H. GLOVER

Dr. Milton Hall Glover, Wichita Falls, Texas, died at his home June 19, 1951, of coronary thrombosis.

Dr. Glover, the son of Andrew Johnson and Alice (Pitts) Glover, was born on a farm near McKenzie, Tenn. He attended Baylor University, Waco, and was graduated from the University of Texas School of Medicine in 1915. Dr. Glover interned at Mercy Hospital, Pittsburgh, Pa., and in 1916 he became radiologist for the Wichita General Hospital, Wichita Falls, continuing in that capacity until 1948, except for time spent in the service during World War I. Dr. Glover attended the first radiological school of the United States Army at Fort Oglethorpe, Ga., in 1918. He was the youngest man in a group of seven sent to Johns Hopkins University to take special radiological work. At the time Dr. Glover was discharged, he was head of the radiological department of the United States General Hospital at Lakewood, N. J.



DR. M. H. GLOVER

A member of the American Medical Association and the Texas Medical Association since 1917 through Wichita County Medical Society, Dr. Glover also was a diplomate of the American Board of Radiology and a life fellow of the American College of Radiology. He held membership in the Texas Radiological Society and the Radiological Society of North America, and had been secretary and president of the Texas society. Dr. Glover served as secretary of the Section on Radiology and Physiotherapy of the Texas Medical Association in 1931 and was chairman of the section in 1940. He was a member of the Rotary Club for thirty-five years.

On July 3, 1918, in Chattanooga, Tenn., Dr. Glover married Miss Inez Gates, who survives.

R. B. PERKINS

Dr. Robert Browning Perkins, Houston, Texas, died in a San Antonio hospital July 3, 1951, of injuries received in an automobile accident.

Born in Dallas on January 15, 1920, Dr. Perkins was the son of Dr. and Mrs. Jack F. Perkins, Dallas. He received his bachelor of arts degree in 1941 from Rice Institute, Houston, and was graduated in 1944 from Washington University School of Medicine, St. Louis. Dr. Perkins served an internship at Barnes Hospital, St. Louis, and received a fellowship to Washington University Clinics, St. Louis, in 1947. He served a residency in medicine at the Veterans Administration Hospital, Dallas, and two days prior to his death, he had completed a two-year residency at Hermann Hospital, Houston. He began work as a staff member of the Veterans Administration Hospital, Houston, on July 1, 1951. His specialty was internal medicine. Dr. Perkins also served in the armed forces, spending one year with the 181st General Hospital in Tokyo, Japan.

DR. R. B. PERKINS

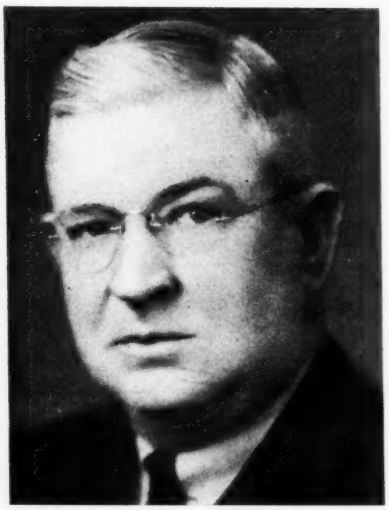
Dr. Perkins was a member of the American Medical Association and the Texas Medical Association through Dallas County Medical Society. He was a Presbyterian and a member of Phi Beta Pi medical fraternity.

Survivors include his wife, the former Miss Virginia Phelps, whom he married July 15, 1940, in Dallas; one son, Robert Jack David Perkins, Dallas; his parents, Dr. and Mrs. Jack F. Perkins, Dallas; two brothers, Jack F. Perkins, Jr., Plano, and William A. Perkins, Alice; and two sisters, Mrs. A. D. Jett, Jr., Dallas, and Mrs. J. C. Jones, Rochester, N. Y.

C. O. TERRELL

Dr. Caleb Odhelius Terrell, Fort Worth, Texas, died of malignant nephrosclerosis July 28, 1951.

Dr. Terrell was born August 11, 1888, in Ranger, the son of Dr. Charles Edwin and Emma (Riddle) Terrell. After graduation from the Ranger High School, Dr. Terrell attended the University of Texas, first in Austin and then the Medical Department in Galveston. He was graduated with a doctor of medicine degree in 1910 and remained in Galveston to serve an internship at St. Mary's Hospital and then went to Houston for a residency at St. Joseph's Infirmary. Dr. Terrell began practice in Ranger. His career was interrupted by World War I, during which he served with the Army Air Force, being discharged as a captain. In 1922 he left Ranger, did postgraduate work at Harvard Medical School, Boston, and at Washington University, St. Louis, and served a residency at the Children's Hospital,



DR. C. O. TERRELL

Iowa City. He then moved to Fort Worth, where he specialized in pediatrics.

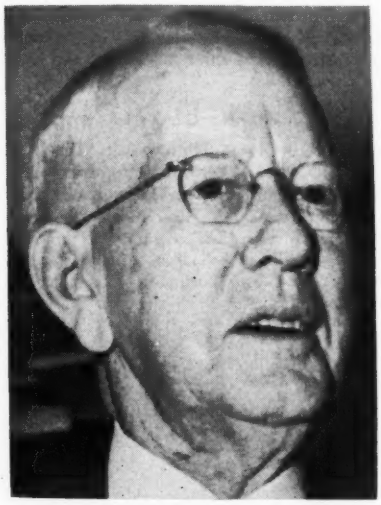
Dr. Terrell was a member of Tarrant County Medical Society, Texas Medical Association, American Medical Association, Southern Medical Association, American Academy of Pediatrics, Texas Pediatric Society, and Fort Worth Pediatric Society. He was a fellow of the American College of Physicians and a member of Alpha Kappa Kappa medical fraternity. He had been president of the Tarrant County Medical Society, secretary of the Section on Medicine and Diseases of Children of the State Medical Association and chairman of the Section on Pediatrics, president of the University of Texas Medical Branch Alumni Association, and a member of the Board of Regents of the University of Texas from 1944 until January this year. He was a member of the Methodist Church.

The Terrell family is well represented in the medical profession. In addition to Dr. Terrell and his father, his wife, two sons, and a brother are physicians and another brother is a dentist. The survivors are his wife, Dr. Blanche Evaline (Osborne) Terrell, whom he married October 2, 1930, in Marietta, Okla.; five sons, Dr. C. O. Terrell, Jr., Dr. C. J. Terrell, Robert G. Terrell, Truman O. Terrell, and Jack S. Terrell, all of Fort Worth; his mother, Mrs. Emma Terrell, Fort Worth; two brothers, Dr. Truman C. Terrell and S. D. Terrell, D.D.S., Fort Worth; and one sister, Mrs. Edgar Walters, Butler, Mo.

F. B. SHIELDS

Dr. Frederick Brooke Shields, Victoria, Texas, died June 18, 1951, of carcinoma of the tongue.

Born December 22, 1875, in Crawfordville, Ga., he was the son of Samuel Smith and Daisy (Brooke) Shields. He received his preliminary education in Carbondale, Pa., and at Professor Barron's Private School, Victoria, before attending Tulane University and Missouri Medical College, St. Louis, where he received his medical degree in 1899. Dr. Shields received training in radiology at Northwestern University Hospital, Chicago. He was owner of the Valley View Hospital, Victoria, from 1905 until 1909. Since 1920 he had been a staff member of Victoria Hospital. He served as divi-



DR. F. B. SHIELDS

sion surgeon for the Galveston-Harrisburg and San Antonio Railroad for 49 years and was surgeon for Missouri Pacific since 1944. During World War I, Dr. Shields was city and county health officer.

Since 1904 Dr. Shields had been a member of the Texas Medical Association through Victoria-Calhoun-Goliad Counties Medical Society. He was vice-president of the Association in 1938, president of Victoria-Calhoun-Goliad Counties Society in 1931, 1932, 1945, and 1949, and was a fellow of the American Medical Association. Dr. Shields held membership in state and national radiological societies, including the Radiological Society of North America. He was a member of the Southern Medical Association, Masonic Lodge, Knights Templar, and Shrine. He was the first president of Victoria Rotary Club, served as deacon and elder in the Presbyterian Church, and was past president of the board of directors of the YMCA.

On January 18, 1900, in Victoria, Dr. Shields married Miss Mary Clark, who survives, as do two sons, Dr. Allan C. Shields and George T. Shields of Victoria.